

Asia Online Games

Divergence across regional game companies into 3Q, post Covid slowdown persists; top ideas across APAC

Asia Online Games

The next wave of games: Our latest insights into the \$200bn global market

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In this Aug-Sept edition of our Asia Online Games series, we provide a comprehensive update on the broader **Asia Pacific region (c.60% of worldwide mobile game revenue as of Aug)**, tracking the top **15 regional game publishers** across mainland China, Japan, South Korea, and ASEAN, and the top **1,500 mobile games** by revenue in the world.

August (global mobile game revenue -13% yoy, mainland China -8%/Korea +4%/AESAN -11%/Japan +3%) continues to be a contrasting month with short-term industry fundamentals pressured by weaker broader gaming environment. Regional divergence emerged as mainland China is seeing weaker trend into 3Q as weaker gamers spending coincided with the high base from minor timespent control implemented since Aug-21, while Japan/Korea holding up relatively well with limited earnings concern on post Covid normalization, while Japan/Korea holding up relatively well with limited earnings concern on post Covid normalization. In Asean, companies remain cautious in bringing back monetization after the deliberate slow-down in the past few months.

Investment ideas: Buy - Tencent, NetEase, Bandai Namco (on CL), Square Enix, Konami, SEA; **Sell** - Netmarble, Krafton, Nexon

Investors' top of mind questions include: **1)** Global and Asia game market post-Covid slowdown and potential inflection timeline in 2023; whether the weakness is driven by rising macroeconomic volatility or game companies' prioritization of user engagement over revenue; **2)** China's next Banhao approvals for international games, after mainland China's top 2 players Tencent/NTES has secured 1st batch of domestic Banhao in Sep, **3)** Updates on game pipeline, including potential blockbuster games from Tencent/NTES, as well as SEA/Korea/Japan gaming companies; **4)** Sector performance: With the sector's resiliency in 2001/2008, whether game sector remains as a reasonable place to hide during

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weaker macro as the shift of monetization model towards in-game purchase has changed players' spending to more discretionary-based.

What to expect next: Into 2H22, we see a continued post-Covid normalization trend in the global gaming market, accompanied by weakened macro, both in/outside mainland China. We believe the broader **growth slowdown is likely to persist till 4Q22**, given the relatively high comps and varied reopening trend across regions. Key focus areas remain on the new pipeline, resiliency of legacy games, future Banhao approvals for Tencent/NTES and slowdown/inflection timeline for *PUBG mobile/Free Fire* titles.

Relevant reports:

1) Japan games: Richer content expands the revenue opportunity: Resume coverage with 5 Buys; Sell Nexon

2) Tencent Holdings (0700.HK): 2Q22 Earnings Review & NDR takeaways: Profit beat; Pulling ad monetization levers into 2H, Game pipeline unlocking; Buy

3) NetEase Inc.(NTES): Earnings Review: 2Q22 beat, steady double digit growth; Maintain Buy

4) Sea Ltd. (SE): 2Q22 Earnings Review: 2H22 Ecommerce outlook pressure from reopening and macro uncertainties; Buy

5) Krafton (259960.KS): 2Q22 review; In-line earnings with lowered cost base but risk-reward still unfavorable; Maintain Sell

The authors would like to thank Joy (Haoyang) Yu for her contributions to the report.

Exhibit 1: Summary of our Asia Game coverage: Key watch points and debates, timeline of catalyst events, and differences between current 3Q22-Aug 2022 grossing run rate and our estimates

For Sea/Garena, the game revenue figure is referring to gross billing; For NetEase, the game revenue excludes CC Live Streaming; For Bandai, the game revenue refers to Network Entertainment;

Region			Rating	FY2021	FY2021	3Q22E game Rev %yoy					3Q22 QTD Rev %yoy	August 2022 Rev %yoy
China	Ticker		Game Rev (US\$ mn)	Game % of group Rev	GSe		Consensus	Key watch points & debates		Timeframe	SensorTower grossing (mobile game only)	
Tencent	700.HK	Buy	33,040	37%	Total	0%	-1%	1. Launch of Undawn	End Sept-2022	Global	-14%	-15%
								2. Stabilization of domestic game after base re-set	Since Sept-2022	China	-11%	-15%
								3. International banhao approval grants	Since Oct-2022			
NetEase	NTES 9999.HK	Buy	9,882	72%	Total	12%	13%	1. Diablo China trend compared with HP China	Since Sept-2022	Global	-4%	0%
								2. Domestic banhao for Justice M & Naraka M	End-2022	China	-1%	6%
								3. Harry Potter Japan release announcement	4Q22			
Bilibili	BILI 9626.HK	Neutral	795	26%	Total	4%	2%	1. International banhao approval (Pretty Derby)	Since Oct-2022	Global	14%	-40%
								2. Longevity of Pretty Derby in TW/HK	2H22	China	8%	-48%
								3. Grossing of 6 new titles (4 domestic, 2 intl.)	4Q22			
Korea												
NCSoft	036570.KS	Neutral	1,942	100%	Total	15%	16%	1. Natural decay rate of LW	3Q22	Global	36%	49%
								2. PLC of LM & L2M (e.g. impact of June update)	2H22			
								3. Details on launch schedules & footage of TL	2Q23			
Krafton	259960.KS	Sell	1,649	100%	Total	0%	-7%	1. PLC of legacy PUBG franchise games	3Q22	Global	-34%	-38%
								2. Sales performance of Callisto Protocol	12/2/2022			
								3. Rebound in PUBG New State	2H22			
Pearl Abyss	263750.KQ	Neutral	340	100%	Total	-5%	-6%	1. Run-rate of BDM China	3Q22	Global	-48%	-48%
								2. Run-rate of Black Clover	2H22			
								3. Details on launch schedules & footage of CD	4Q22			
ASEAN												
SEA/Garena	SE	Buy	4,320	43%	Total	-43%	-41%	1. FreeFire post-COVID decline to bottom	3Q22	Global	-48%	-51%
								2. Update on pipeline expansion	2H22			
								3. OPM pressure from FreeFire & pipeline expansic	2H22			
Japan												
Bandai	7832.T	Buy (on CL)	2,971	43%	Total	-2%	5%	1. Run-rate of ONE PIECE IP related games	2H22	Global	28%	34%
								2. Launch of ONE PIECE Odyssey (console)	Jan-2023			
Nexon	3659.T	Sell	2,498	100%	Total	31%	29%	1. Run-rate of HIT2 and Dungeon & Fighter Mobile	2H22	Global	43%	39%
								2. Launch of KartRider: Drift	2H22			
								3. Launch of Project Discovery	2H22			
CyberAgent	4751.T	Neutral	2,444	39%	Total	-26%	-28%	1. Run-rate of core title Uma Musume: Pretty Derby	2H22	Global	-21%	-21%
								2. Launch of Jujutsu Kaisen: Phantom Parade	2H22			
Square Enix	9684.T	Buy	2,401	77%	Total	1%	0%	1. Run-rate of Fullmetal Alchemist Mobile	2H22	Global	18%	14%
								2. Launch of console titles and anniversary events	Since Sept-2022			
								3. Launch of new title Forspoken (console)	Jan-2023			
Konami	9766.T	Buy	1,840	72%	Total	9%	7%	1. Run-rate of core title Professional Baseball Spirit	2H22	Global	-18%	-27%
								2. Run-rate of eFootball 2023	2H22			

Source: Company data, Goldman Sachs Global Investment Research, SensorTower, Visible Alpha Consensus Data

- **Mainland China (-8% yoy)**, as (yoy %) industry weakness likely continuing into 3Q22E amid supply constraints, timespent declining on re-opening, industry wide base-effect and weakened macro; all eyes remain on new approvals, grossing trend of legacy games:

- **Tencent (-15% yoy domestic, -21% yoy international)**. Investor focus will likely be on whether Tencent games (non-casual games) may be included in the next batch of approvals (esp. international game approvals) and grossing stabilization on legacy games. With its 2H international pipeline, Tencent could continue to outperform global peers on room for market share gains. Near-term, % yoy decline in monthly grossings in August has widened from July in domestic markets, which marks the third consecutive month with widening %yoy decline, as legacy games deliver weaker performance. Internationally, release of *Tower of Fantasy* has cushioned the decline of *PUBGm*. **Key areas to watch:** 1) Sept domestic grossing performance following the rebase after the 1-year anniversary of minor gaming timespent regulations; 2) International game's Banhao approvals, 3) stabilization of

PKE/PUBGM titles domestically/internationally, **4) Grossing performance of *Undawn*, to be released by end-Sept, per management.**

- **NetEase: (+6% yoy domestic, -29% yoy international).** We expect game revenues to grow at 12% yoy in 3Q22E, underpinned by market share gains across both mobile and PC games, especially as *Diablo Immortal's* grossing contribution fully kicked-in in August. **Key areas to watch: 1)** Domestic Banhao approvals (*Justice Mobile*, *Naraka Mobile* likely year-end/early 2023), **2)** run-rate of *Diablo Immortal* mainland China; **3)** 4Q22 release of *Harry Potter* Japan, the game is likely to conduct another round of CBT in Oct.
- **Bilibili: Global grossing (ex. jointly-operated games)-40% yoy in August (domestic -43% yoy, international +20% yoy),** attributable to the steep grossing drop of *Space Hunter 3* in mainland China, though partly offset by the resilient performance of *Pretty Derby* in Taiwan.
- **ASEAN (-11% yoy),** specifically for **SEA's (-51% yoy)** Garena, we believe **1)** the stabilizing of ***Free Fire's* grossing** proving its resilience and user engagement in the post-Covid world and **2)** more visibility on **pipeline** in the foreseeable future. We are encouraged by the continual stabilization of user engagement, with ***Free Fire+Free Fire Max* MAU flat** on a MoM basis in **August**, by refreshing content and deliberate slow-down of monetization. With the sequential qoq grossing improvement of ***Free Fire+Free Fire Max* grossing in August**, we expect Garena's grossing to bottom in **4Q22** and will follow the trajectory of mature MOBA titles in the longer term, with a 6% growth in 2023E/24E.
- **Korea (+4% yoy):** With key game launches delayed or slated toward the latter part of the year, we believe the main debates around the companies will be **product life cycle management** for existing games before new games kick in and incremental data (i.e. exact launch date, pre-launch marketing activities, details on business model) on the upcoming blockbuster games before their launch.
 - **For NCSoft (+49% yoy),** we believe the revenue trajectory of existing major mobile games (*LM*, *L2M*, *LW*) will be key drivers of earnings as delays in new pipeline was materialized. For future pipeline, we push back the launch of *TL* (*Throne and Liberty*) to 2Q23E (previously 4Q22E) and following game pipelines accordingly, while removing *LW* (region 2) launch given limited visibility.
 - **For Krafton (-33% yoy),** we expect *PUBG* franchise mobile revenue will drive near term earnings but the main event for the year will likely be the launch of *The Callisto Protocol* (TCP, scheduled for 2 Dec, 2022). Yet we remain relatively conservative on the revenue size of the imminent blockbuster game, TCP, given the niche nature of the genre.
 - **For Pearl Abyss (-48% yoy),** we believe investor expectations are likely low on *BDM* mainland China being a turnaround title given the weak debut and fast revenue deterioration trend. The delays of game release (*Crimson Desert* and *DokeV*) will result in substantial volatility in earnings projections given the front-loaded nature of console games.
- **Japan (+3% yoy):** We believe there is no need for concern of large earnings

drop-back following the Covid normalization, as gamers has grown due to stay-at-home policies. We think investors' attention will focus on new mobile game titles set to launch going forward.

- **For Bandai Namco (+34% yoy)**, sales were strong for *ONE PIECE* IP related games. Bandai Namco plans to launch a new RPG *ONE PIECE ODYSSEY* for the PS5, PS4, Xbox Series X|S, and Steam before the end of 2022, which we believe will also benefit from the popularity of *ONE PIECE* IP.
- **For Square Enix (+14% yoy)**, partly driven by the launch of *Fullmetal Alchemist Mobile* on 4 August. We expect the company's console game business to continue posting profits from 2Q, with new pipeline titles center on mid-sized titles basing on existing IPs. Yet we forecast a 4Q loss for this business due to the launch of major new title *FORSPOKEN* and the booking of valuation losses on content.
- **For Konami (-27% yoy)**, we remain wary of soft earnings momentum. We note the weak sales of the core title *Professional Baseball Spirits A* and expect sales to pick up in October to December on seasonality, given the company typically schedules anniversary and other events during this quarter each year. For *eFootball 2023*, we see potential weak grossing as we believe the company's business strategy is to continue focusing on user engagement rather than monetization.
- **For CyberAgent (-20% yoy)**, sales of core title *Uma Musume: Pretty Derby* remained on a downward trend, although we note that the yoy decline is narrowing steadily, from -55% in April to -9% in August. In the near term, CyberAgent plans to launch two new titles — *Jujutsu Kaisen: Phantom Parade* (slated for 2022) and *Final Fantasy VII: Ever Crisis* (we assume distribution will begin in 2023), though unlikely to offset the downward trend for *Uma Musume: Pretty Derby*.
- **For Nexon (+39% yoy)**, we expect September top-line growth from **1)** new title *HIT2*, which is positioned at the top of Korea's mobile game sales ranking since its Korea launch on August 25; **2)** events launched to coincide with the Korean Thanksgiving Day (Chuseok) holiday period. For its pipeline, Nexon plans to launch two new titles in 2022—*KartRider: Drift* (on mobile as well as PS4, Steam, and Xbox One platforms) and *Project Discovery* (developed by subsidiary Embark Studios).

* Unless otherwise stated, all grossing figures are yoy % trends of August-2022.

Exhibit 2: Global mobile game grossing revenue yoy % trend by region

As the global mobile game industry (ex. mainland China) is in the midst of a transition against tough comps created by the pandemic benefits for the majority of 2022, global mobile game grossing saw another -13% yoy in August.

Global mobile game	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
YoY% - global	-6%	-7%	-6%	-2%	-8%	-11%	-11%	-13%
2Yr CAGR% - global	11%	9%	7%	4%	-2%	-2%	-3%	-3%
YoY% - region								
China (constant FX)	2%	-13%	3%	13%	10%	-3%	-6%	-8%
Korea (constant FX)	-1%	10%	26%	16%	3%	-4%	-6%	4%
Japan (constant FX)	-12%	-7%	-9%	-4%	0%	5%	9%	3%
ASEAN (USD)	-8%	-10%	-5%	1%	-5%	-6%	-8%	-11%
Global Ex.China	-8%	-5%	-8%	-6%	-11%	-12%	-11%	-13%

Source: SensorTower, Goldman Sachs Global Investment Research

Exhibit 3: Key Asia Gaming names' monthly snapshot

		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
China		Monthly Grossing YOY %							
Ticker									
Tencent - domestic	700.HK	-8%	-9%	1%	7%	8%	-4%	-8%	-15%
Tencent - intl.		12%	2%	6%	-25%	-27%	-40%	-36%	-21%
NetEase - domestic	NTES	-13%	-31%	-11%	4%	9%	4%	-9%	6%
NetEase - intl.		-9%	-28%	-22%	-5%	-29%	-29%	-8%	-29%
Bilibili - domestic	BILI	63%	0%	46%	-33%	-53%	-25%	122%	-43%
Bilibili - intl.		-8%	28%	75%	28%	-69%	-37%	84%	20%
XD - domestic	2400.HK	19%	7%	40%	80%	90%	77%	65%	96%
XD - intl.		-18%	-30%	-31%	-39%	-28%	-16%	-2%	-29%
MIHoYo - domestic	Unlisted	66%	-4%	56%	150%	56%	155%	8%	79%
MIHoYo - intl.		29%	-4%	-7%	23%	-41%	16%	-24%	-33%
Korea									
Netmarble	251270.KS	-19%	-21%	-34%	20%	42%	-14%	1%	2%
NCSOFT	036570.KS	61%	82%	108%	25%	26%	13%	23%	49%
Krafton	259960.KS	-3%	-6%	-2%	6%	-16%	-23%	-34%	-33%
Pearl Abyss	263750.KQ	-45%	-45%	-30%	-16%	-34%	-41%	-49%	-48%
Japan									
BANDAI NAMCO	7832.T	-46%	-36%	-45%	-37%	26%	104%	23%	34%
NEXON	3659.T	-20%	-17%	32%	87%	56%	36%	46%	39%
CyberAgent	4751.T	60%	51%	-29%	-44%	-26%	-32%	-21%	-20%
SQUARE ENIX	9684.T	-25%	-26%	-32%	-30%	-18%	5%	22%	14%
Konami	9766.T	-23%	16%	-6%	10%	-17%	-14%	-10%	-27%
ASEAN									
SEA/Garena	SE	-9%	-17%	-22%	-32%	-48%	-48%	-45%	-51%
Global mobile game		-6%	-7%	-6%	-2%	-8%	-11%	-11%	-13%

Source: SensorTower, Company data, data compiled by Goldman Sachs Global Investment Research

Exhibit 4: Key Asia online gaming stocks comp sheet

Pricing as of 16 Sept

Company	Primary Analyst	Ticker	fx	Last Price	Target Price	+/- Side	Rating	Mkt Cap (US\$m)	ADTV	Performance 1Mo YTD	Fiscal Year	PE n-Gaap 22F 23F	EPS CAGR 21-23 23F	Rev CAGR 21-23 2023F	
China game															
Tencent	Ronald Keung, CFA	0700.HK	HK\$	293.20	502.00	71% Buy	Buy	362,127	886	-3.3% -35.8%	Dec	20.8x 16.1x	9% 25%	4% 8%	
NetEase	Lincoln Kong, CFA	NTES	\$	82.71	121.00	46% Buy	Buy	55,017	158	-9.7% -18.7%	Dec	17.9x 15.7x	7% 14%	10% 10%	
NetEase HK	Lincoln Kong, CFA	9999.HK	HK\$	132.20	189.00	43% Buy	Buy	56,013	119	-8.4% -16.1%	Dec	17.9x 16.7x	6% 7%	8% 6%	
Bilibili	Lincoln Kong, CFA	BILI	\$	17.06	25.60	50% Neutral	Neutral	6,734	124	-28.4% -63.2%	Dec	NM NM	NM -37%	18% 25%	
Bilibili HK	Lincoln Kong, CFA	9626.HK	HK\$	138.70	200.00	44% Neutral	Neutral	6,975	48	-27.1% -61.3%	Dec	NM NM	NM -37%	19% 25%	
Median (Sum for Mkt cap)								486,867	1,134	-9.7% -35.8%		17.9x 16.1x	7% 7%	10% 10%	
ASEAN game															
Sea	Peng Vithayakorn, SE		\$	59.01	159.00	169% Buy	Buy	36,471	645	-18.6% -78.6%	Dec	NM NM	NM -79%	26% 26%	
Korea game															
NCSOFT	Eric Cha	036570.KS	₩	368,000	380,000.00	3% Neutral	Neutral	5,820	32	-3.8% -52.8%	Dec	16.8x 21.1x	-5% -21%	3% -4%	
Netmarble	Eric Cha	251270.KS	₩	60,700	82,000.00	35% Sell	Sell	3,759	10	-10.7% -51.4%	Dec	18.8x 16.4x	12% 15%	16% 6%	
Pearl Abyss	Eric Cha	263750.KQ	₩	54,000	58,000.00	7% Neutral	Neutral	2,576	14	-6.4% -61.0%	Dec	94.4x 15.7x	86% 502%	31% 88%	
Krafton	Eric Cha	259960.KS	₩	239,000	220,000.00	-8% Sell	Sell	8,058	31	-10.0% -48.0%	Dec	14.5x 19.0x	2% -24%	3% 1%	
Median (Sum for Mkt cap)								20,214	86	-8.2% -49.7%		17.7x 17.7x	7% -3%	9% 3%	
US/Europe game															
Electronic Arts	Eric Sheridan	EA	\$	121.74	133.00	9% Neutral	Neutral	34,209	263	-8.6% -7.7%	Mar	17.2x 15.8x	7% 8%	10% 7%	
Playtika	Eric Sheridan	PLTK	\$	10.09	15.00	49% Neutral	Neutral	4,165	29	-12.6% -41.6%	Dec	17.0x 13.0x	2% 30%	3% 6%	
Roblox	Eric Sheridan	RBLX	\$	39.50	28.00	-29% Sell	Sell	23,460	1,040	-14.3% -61.2%	Dec	NM 26.9x	-30% 43%	25% 22%	
Take Two	Eric Sheridan	TTWO	\$	124.19	131.00	5% Neutral	Neutral	20,802	249	-6.6% -30.1%	Mar	25.9x 19.1x	9% 36%	39% 28%	
Ubisoft	Eric Sheridan	UBI.PA	€	34.22	41.00	20% Sell	Sell	4,371	24	-24.9% -20.5%	Mar	29.8x 19.0x	65% 57%	1% 5%	
Median (Sum for Mkt cap)								87,008	1,605	-12.6% -30.1%		21.5x 19.0x	4% 33%	7% 10%	
Japan game															
CyberAgent	Minami Munakata	4751.T	¥	1,306.00	1,500.00	15% Neutral	Neutral	4,893	35	-11.9% -31.8%	Sep	26.8x NM	-10%		7%
Nintendo	Minami Munakata	7974.T	¥	61,080.00	83,000.00	36% Buy	Buy	49,918	259	1.6% 13.9%	Mar	14.4x 15.2x	0% -5%	3% 1%	
Bandai Namco	Minami Munakata	7832.T	¥	9,951.00	13,800.00	39% Buy*	Buy*	15,314	48	-9.8% 10.6%	Mar	19.1x 17.8x	19% 7%	10% 10%	
Nexon	Minami Munakata	3659.T	¥	2,588.00	2,300.00	-11% Sell	Sell	15,766	37	-10.8% 16.4%	Dec	20.8x 25.1x	-10% -19%	18% 8%	
Capcom	Minami Munakata	9697.T	¥	3,665.00	3,800.00	4% Neutral	Neutral	5,474	25	-1.2% 35.3%	Mar	22.3x 19.7x	14% 13%	11% 11%	
Konami	Minami Munakata	9766.T	¥	6,930.00	10,000.00	44% Buy	Buy	6,476	31	-8.0% 25.5%	Mar	17.1x 14.6x	14% 17%	13% 13%	
Square Enix	Minami Munakata	9684.T	¥	6,150.00	8,400.00	36% Buy	Buy	5,186	23	-1.1% 4.9%	Mar	14.0x 14.5x	5% -6%	4% 15%	
Median (Sum for Mkt cap)								98,135	423	-4.6% 15.1%		18.1x 16.5x	10% 1%	11% 10%	

TPs are based on a 12-month period; * indicates stock on our Conviction List

Source: Company data, Goldman Sachs Global Investment Research

Mainland China: Industry-wide weakness to continue yet diverging trend from market share gainers persist

Exhibit 5: Mobile game grossing YoY% and MoM% trends: domestic and international (ex.mainland China)

Domestic mobile	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
YoY% - domestic	2%	-13%	3%	13%	10%	-3%	-6%	-8%
MoM% - domestic	15%	-14%	16%	8%	0%	-13%	1%	-1%
International mobile (total)								
YoY% - international	-8%	-5%	-8%	-6%	-11%	-11%	-11%	-13%
MoM% - international	-2%	-9%	3%	-3%	-3%	-4%	6%	0%
International mobile (Chinese publishers)								
Market share% - CN publishers	16.2%	15.4%	15.7%	16.1%	15.6%	15.3%	15.3%	15.2%
YoY% - international	-8%	-16%	-10%	-12%	-19%	-18%	-15%	-18%
MoM% - international	5%	-14%	5%	0%	-6%	-6%	7%	-1%

Source: SensorTower, data compiled by Goldman Sachs Global Investment Research

Domestic performance: Industry weakness (yoy %) to continue in 3Q22. Since May-22, mainland China's mobile game industry has encountered headwinds including: **1) Game supply constraints** amid lower quantity of Banhao approvals, especially towards relatively high-ARPPU games; **2) Game timespent % yoy dropping on** base effect resulting from minor gaming timespent control implemented since Aug-21, with total timespent on games **-10% yoy** (vs. -2% yoy in July), though we note game time spent improved entering into Sept after an easier base; and **3) Weakened macro** that has dented users' online entertainment spending. While we view most of the headwinds as cyclical (except for NPPA's banhao issuance preference), we still see limited likelihood for the industry to resume positive yoy (%) growth in the upcoming months given the low visibility on industry pipeline, as the 5 batches of banhao approvals issued YTD did not include new titles that demonstrate blockbuster potential, in our view.

August grossing -8% yoy in the domestic mainland China market, widened the decline from -6% yoy in July. **By company, Monthly Grossings:** Tencent -15% yoy/-5% mom, NetEase +6% yoy/+14% mom, Bilibili -43% yoy/-44% mom, according to SensorTower.

Domestic regulation: On 13 September, NPPA issued the 5th batch approval of the monetization license (Banhao), which contained multiple positive surprises. (See our previous [note](#)) **1) For the 73 new game approvals, Tencent and NetEase have received 1 new Banhao each.** While neither game struck us as having the potential to emerge into blockbusters monetization-wise, we believe the approval itself serves as a milestone reflecting NPPA's benign stance towards the large game companies in mainland China. **2) Concurrently, NPPA also issued the 20 amended approvals (审批变更), Tencent, NetEase and Bilibili have received 1 amended Banhao each,** and we believe the examples of companies receiving amended Banhao approval for their older games that have previously received Banhao (but on other platforms) have opened up the optionality of an easier procedure for re-applying Banhao for their previously approved games on other platforms (**e.g., will potentially be easier for NetEase to**

apply for Naraka Mobile/Console Banhao, whose PC version was already approved). However, as the release frequency for amended Banhao is **only once every year**, we do not expect this to unlock Tencent/NetEase game pipelines before 2023E.

International expansion: Wider-than-industry magnitude of decline for Chinese publishers. While the global mobile game industry (ex. mainland China) is in the midst of a transition against tough comps created by the pandemic benefits for the majority of 2022, grossings saw another **-13% yoy/-18% yoy** decline for industry/Chinese game publishers in August. We observe the weaker-than-industry performance of Chinese publishers **by-company**: Tencent -21% yoy given the high base of Supercell and grossing drop of *PUBGM*, but the magnitude of decline narrowed driven by release of *Tower of Fantasy* (幻塔); NetEase -29% yoy given the %yoy depreciation of Japanese Yen. Bilibili saw its August international grossing +20% yoy, primarily due to the release of *Pretty Derby* in Taiwan market.

Latest game grossing trends from Tencent, NetEase and Bilibili will

Tencent: Global mobile grossing -15% yoy (domestic -15% yoy constant FX, international -21% yoy) in August, a month with widened decline from domestic markets, also the last month before the base re-set of minor gaming contribution starting Sept-22. **By region:**

■ **Internationally,**

- **Continual international expansion through M&A: 1)** On 7 September, Ubisoft announced that Tencent will acquire 49.9% stake in Guillemot Brothers, with Tencent also gaining the rights to raise **direct stake** in Ubisoft to 9.99% from the current 4.5%; **2)** Tencent invested in FromSoftware, the developer behind Elden Ring and Dark Souls via its Sixjoy subsidiary, and now owns 16.25% of FromSoftware's shares.
- **By key titles: 1)** *PUBGM* grossing was hindered by post-COVID normalization, with August grossing dropping 41% yoy, and we continue to expect the weakness to extend towards year-end; **2)** Supercell grossing continued to decline by 34% yoy; and **3)** On 10 August, Tencent's global publishing brand Level Infinite launched the international version of the anime MMORPG game *Tower of Fantasy*.

■ **Domestically,**

- **Legacy games:** *Honour of Kings (HoK)* saw grossing at -14% yoy in August, due to the challenging comps. *Peacekeeper Elites (PKE)* saw grossing decline of -43% yoy in August, similar to the -45% yoy decline in July, likely due to weak macro.
- **New games:** Released on 20 July, *LOL: E-sport manager* (英雄联盟电竞经理), the e-sport simulation adaption game that is based off the *LOL* IP continues its grossing contribution, with **1.7% total market share in August**, though grossing decrease by 18% mom.

On 16th and 17 August 2022, Tencent held its annual event, **Tencent Game Developers**

Conference (TGDC) with the theme of “Inspire Six Sense”, during which 20+ global industry experts shared their views on the industry outlook and the application of cutting-edge technology. In August, Tencent also jointly established the “**Metaverse and Virtual Reality Interaction Joint Research Institute**” with leading companies and universities in China, including Huawei, Epic Games, Peking University, Fudan University, etc.

NetEase: Flattish Global grossing yoy (domestic +6% yoy constant FX, international -29% yoy) in August, as *Diablo Immortal*’s grossing contribution fully kicked-in in August. **By region:**

- **Internationally**, NetEase’s grossing dropped -29% yoy in August, driven by a combination of a 27% decline in JPY:USD and weak traction in *Knives Out Japan*, with -45% yoy decline. On 31 August, NetEase announced its acquisition of the French game studio Quantic Dream, creator of *Detroit: Become Human*, marking NetEase’s first step in game studio expansion in Europe.
- **Domestically:**
 - ***Diablo Immortal***, released on 25 July, the game ranked No.3 in the mainland China mobile game market in August, contributing 33% of NetEase August grossing, with first month grossing c.Rmb1.05bn, on track towards our estimated annual grossing of Rmb4.2bn. Amid recent moderating grossing trend in early-half of Sept (dropping from no.3 to no.4-6 on IOS grossing chart), NetEase will release its first major expansion pack ***Castle Cyrangar*** for *Diablo* by **end-Sept**.
 - **Legacy games:** **1) *Fantasy Westward Journey (FWJ)*** saw grossing -38% yoy in August, widening the decline in July; **2) *Harry Potter China*** saw grossing -24% mom in August, remaining on the declining curve since launch; **3) *Infinite Lagrange*** continue to show resilience and remains as NetEase’s 3rd largest mobile game domestically in August, yet we note its consecutive mom decline since July; **4)** On 10 August, NetEase officially announced in-depth cooperation of ***A Chinese Ghost Story*** and Tianyu Digital’s “virtual human”.

Bilibili: Global grossing (ex. jointly-operated games) -40% yoy in August (domestic -43% yoy, international +20% yoy) due to significant high comps and the steep decline of *Space Hunter 3* of -76% mom in August.

Exhibit 6: Tencent: international and domestic grossing performances

Tencent international mobile game grossing includes Supercell, Miniclip, Pocket Gems and Marvelous

Tencent 腾讯 - International		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
International Grossing % yoy		12%	2%	6%	-25%	-27%	-40%	-36%	-21%
International Market share %		4.8%	4.5%	4.7%	4.4%	4.4%	3.8%	3.5%	4.4%
Tencent 腾讯 - domestic		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Domestic Grossing % yoy - constant FX		-8%	-9%	1%	7%	8%	-4%	-8%	-15%
Domestic Grossing % mom - constant FX		27%	-9%	6%	8%	-1%	-14%	7%	-5%
Grossing % yoy - by titles									
Honour of Kings	王者荣耀								-14%
PeaceKeeper Elite	和平精英								-43%
League of Legends Mobile	英雄联盟手游								0%
Return to Empire	重返帝国								0%
Cross Fire	穿越火线手游								-28%
Teamfight tactics	金铲铲之战								-9%
QQ Speed	QQ飞车								-29%
Naruto	火影忍者								-38%
Moon Light Blade	天涯明月刀								-77%
LoL: E-sport manager	英雄联盟电竞经理								0%
Domestic Market share %		45.5%	48.2%	44.0%	43.9%	43.5%	42.9%	45.3%	43.6%
Market share % - by titles									
Honour of Kings	王者荣耀								18.0%
PeaceKeeper Elite	和平精英								8.2%
League of Legends Mobile	英雄联盟手游								1.9%
Return to Empire	重返帝国								0.2%
Cross Fire	穿越火线手游								2.4%
Teamfight tactics	金铲铲之战								1.5%
QQ Speed	QQ飞车								1.2%
Naruto	火影忍者								0.7%
Moon Light Blade	天涯明月刀								0.4%
LoL: E-sport manager	英雄联盟电竞经理								1.7%

Source: SensorTower, data compiled by Goldman Sachs Global Investment Research

Exhibit 7: NetEase: international and domestic grossing performances

NetEase网易 - International		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
International Grossing % yoy		-9%	-28%	-22%	-5%	-29%	-29%	-8%	-29%
International Market share %		1.2%	1.1%	1.0%	1.1%	1.1%	0.9%	1.2%	0.9%

NetEase网易 - domestic		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Domestic Grossing % yoy - constant FX		-13%	-31%	-11%	4%	9%	4%	-9%	6%
Domestic Grossing % mom - constant FX		-6%	-20%	12%	19%	4%	-16%	-4%	14%
Grossing % yoy - by titles									
Fantasy Westward Journey	梦幻西游						3%	-21%	-38%
Day After	明日之后								-44%
Harry Potter:Magic Awakened	哈利波特：魔法觉醒								0%
Sky:Children of Light	光遇								-12%
Invincible	率土之滨								-22%
Westward Journey	大话西游								-66%
Onmyoji	阴阳师								-49%
A Chinese Ghost Story	倩女幽魂								-24%
Diablo Immortal	暗黑破坏神：不朽								0%
Infinite Lagrange	无尽的拉格朗日								0%
Domestic Market share %		14.1%	13.2%	12.7%	14.0%	14.6%	14.1%	13.4%	15.4%
Market share % - by titles									
Fantasy Westward Journey	梦幻西游								3.1%
Day After	明日之后								0.5%
Harry Potter:Magic Awakened	哈利波特：魔法觉醒								0.3%
Sky:Children of Light	光遇								0.6%
Invincible	率土之滨								0.9%
Westward Journey	大话西游								0.5%
Onmyoji	阴阳师								0.4%
A Chinese Ghost Story	倩女幽魂								0.4%
Diablo Immortal	暗黑破坏神：不朽								5.1%
Infinite Lagrange	无尽的拉格朗日					0.5%			1.0%

Source: SensorTower, data compiled by Goldman Sachs Global Investment Research

Exhibit 8: Bilibili: international and domestic grossing performances

Bilibili哔哩哔哩 - International		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
International Grossing % yoy		-8%	28%	75%	28%	-69%	-37%	84%	20%
International Market share %		0.08%	0.05%	0.04%	0.03%	0.04%	0.14%	0.13%	0.05%
Bilibili哔哩哔哩 - domestic		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Domestic Grossing % yoy - constant FX		63%	0%	46%	-33%	-53%	-25%	122%	-43%
Domestic Grossing % mom - constant FX		-19%	-41%	-14%	15%	56%	19%	67%	-44%
Grossing % yoy - by titles									
Azur Lane	碧蓝航线								1%
Fate/GrandOrder	命运：冠位指定								-59%
GuardianTales	坎公骑冠剑								-90%
Princess Connect	公主连结								-8%
Nofland	诺弗兰物语								87%
BanGDream	BanGDream								116%
Gu Jian Qi Tan	古剑奇谭								-74%
You Jiu Zhi Shu	悠久之树								0%
Space Hunter 3	时空猎人3								0%
Burst Witch	爆裂魔女					0%			0%
Domestic Market share %		0.9%	0.6%	0.5%	0.5%	0.8%	1.1%	1.7%	1.0%
Market share % - by titles									
Azur Lane	碧蓝航线								0.09%
Fate/GrandOrder	命运：冠位指定								0.43%
Guardian Tales	坎公骑冠剑								0.04%
Princess Connect	公主连结								0.07%
Nofland	诺弗兰物语								0.06%
BanGDream	BanGDream								0.04%
Gu Jian Qi Tan	古剑奇谭								0.03%
You Jiu Zhi Shu	悠久之树								0.01%
Space Hunter 3	时空猎人3								0.22%
Burst Witch	爆裂魔女								0.00%

Source: SensorTower, data compiled by Goldman Sachs Global Investment Research

Exhibit 9: XD: international and domestic grossing performances

XD心动 - International		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
International Grossing % yoy		-18%	-30%	-31%	-39%	-28%	-16%	-2%	-29%
International Market share %		0.16%	0.14%	0.12%	0.11%	0.15%	0.18%	0.16%	0.15%

XD心动 - domestic		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Domestic Grossing % yoy - constant FX		19%	7%	40%	80%	90%	77%	65%	96%
Domestic Grossing % mom - constant FX		18%	-3%	5%	6%	4%	2%	-9%	25%

Grossing % yoy - by titles

Sausage Party	香肠派对								95%
Ragnarok RO: Eternal Love	仙境传说RO: 守护								125%
Ulala: IdleAdventure	Ulala:IdleAdventure								13%
Immortal Tao	神仙道(三周年)								130%
Girls' Frontline	少女前线Girls'Frontli								9%
Human fall flat	人类跌落梦境								59%
MuseDash Run	MuseDash喵斯快跑-I								-34%
Sweep the Thousand Army	横扫千军-正统三国								-36%
Peeping Dreams in a Cage	笼中窥梦								0%
Ragnarok RO: Play Polly Every	仙境传说RO: 天天								-26%

Domestic Market share %

		0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%
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Market share % - by titles

Sausage Party	香肠派对								0.14%
Ragnarok RO: Eternal Love	仙境传说RO: 守护								0.07%
Ulala: IdleAdventure	Ulala:IdleAdventure								0.05%
Immortal Tao	神仙道(三周年)								0.04%
Girls' Frontline	少女前线Girls'Frontli								0.02%
Human fall flat	人类跌落梦境								0.01%
MuseDash Run	MuseDash喵斯快跑-I								0.01%
Sweep the Thousand Army	横扫千军-正统三国								0.01%
Peeping Dreams in a Cage	笼中窥梦								0.00%
Ragnarok RO: Play Polly Every	仙境传说RO: 天天								0.00%

Source: SensorTower, data compiled by Goldman Sachs Global Investment Research

Exhibit 10: Other China mobile game publishers: domestic grossing by player snapshot

miHoYo米哈游		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
YoY% - local currency		63%	-5%	52%	149%	62%	166%	12%	90%
2-Yr CAGR% - local currency		82%	171%	219%	227%	215%	306%	98%	216%
Grossing % yoy - by titles									
Genshin Impact	Genshin Impact	66%	6%	58%	158%	61%	161%	18%	72%
HonKai3	崩坏3	90%	-44%	19%	106%	1%	88%	-62%	152%
Tears of Themis	未定事件簿	20%	-46%	27%	89%	58%	266%	184%	186%
Guns Girl - School DayZ	崩坏学园2	29%	-71%	22%	-45%	-42%	-52%	-2%	-64%
China Market share %		5.3%	4.8%	6.7%	5.7%	4.2%	6.1%	4.8%	5.3%
Market share % - by titles									
Genshin Impact	Genshin Impact	4.8%	4.3%	6.3%	5.2%	3.9%	5.7%	4.3%	4.5%
HonKai3	崩坏3	0.4%	0.5%	0.2%	0.4%	0.2%	0.3%	0.3%	0.7%
Tears of Themis	未定事件簿	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.1%
Guns Girl - School DayZ	崩坏学园2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

37GAMES ENTERTAINMENT三七互娱		002555.SZ	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
YoY% - local currency			26%	12%	13%	58%	54%	42%	64%	86%
2-Yr CAGR% - local currency			77%	44%	80%	98%	44%	41%	42%	-6%
Grossing % yoy - by titles										
Douluo Continent	斗罗大陆: 魂师对决		0%	0%	0%	0%	0%	0%	-71%	-93%
Song of the Clouds City	云上城之歌		-21%	-1%	133%	91%	23%	-16%	-38%	-63%
Callmethebigshopkeeper	叫我大掌柜		0%	0%	0%	0%	-47%	-57%	-59%	-67%
The Elves Carnival	精灵盛典:黎明		-57%	-26%	15%	9%	-11%	-34%	-46%	-52%
Douluo Continent - Wuhun	斗罗大陆: 武魂觉醒		0%	0%	-87%	-97%	-97%	-94%	-88%	-86%
China Market share %			1.4%	1.3%	1.6%	1.2%	0.9%	1.0%	0.8%	0.6%
Market share % - by titles										
Douluo Continent	斗罗大陆: 魂师对决		0.6%	0.6%	0.7%	0.5%	0.4%	0.4%	0.3%	0.2%
Song of the Clouds City	云上城之歌		0.3%	0.3%	0.4%	0.4%	0.3%	0.2%	0.2%	0.1%
Callmethebigshopkeeper	叫我大掌柜		0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
The Elves Carnival	精灵盛典:黎明		0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
Douluo Continent - Wuhun	斗罗大陆: 武魂觉醒		0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%

PerfectWorld完美世界		002624.SZ	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
YoY% - local currency			90%	26%	60%	35%	8%	14%	69%	61%
2-Yr CAGR% - local currency			12%	31%	31%	26%	24%	11%	46%	44%
Grossing % yoy - by titles										
Menghuan Xin Zhu Xian	梦幻新诛仙		0%	0%	0%	0%	0%	-16%	-86%	-81%
Zhu Xian	诛仙		8%	-5%	22%	31%	29%	22%	-1%	-12%
NewSwordsmen	新笑傲江湖		-61%	-71%	-52%	-61%	-62%	-63%	-62%	-65%
Tower of Fantasy	幻塔		0%	0%	0%	0%	0%	0%	0%	0%
ForsakenWorld:GodsandDemons	ForsakenWorld:GodsandDemons		-89%	-85%	-84%	-81%	-78%	-79%	-77%	-82%
China Market share %			2.0%	1.4%	1.4%	1.1%	1.1%	1.3%	1.2%	1.0%
Market share % - by titles										
Menghuan Xin Zhu Xian	梦幻新诛仙		0.3%	0.3%	0.3%	0.3%	0.3%	0.5%	0.4%	0.4%
Zhu Xian	诛仙		0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
NewSwordsmen	新笑傲江湖		0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Tower of Fantasy	幻塔		1.1%	0.6%	0.6%	0.3%	0.3%	0.2%	0.2%	0.1%
ForsakenWorld:GodsandDemons	ForsakenWorld:GodsandDemons		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

G-bits 吉比特		603444.SH	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
YoY% - local currency			164%	-11%	14%	41%	24%	-63%	-23%	-2%
2-Yr CAGR% - local currency			87%	58%	93%	90%	98%	102%	119%	111%
Grossing % yoy - by titles										
YiNianXiaoYao	一念逍遥-仙山联动		22326%	-17%	3%	29%	39%	-4%	5%	-25%
WenDao	问道		11%	-5%	35%	62%	-4%	-13%	-26%	-26%
UndergroundCastle3:PoemofSoul	地下城堡3: 魂之诗		0%	0%	0%	0%	0%	0%	0%	0%
Mole's World	摩尔庄园		0%	0%	0%	0%	84%	-99%	-97%	-87%
Devil's Deck	恶魔秘境		0%	0%	0%	0%	0%	0%	0%	459%
China Market share %			2.8%	2.5%	2.8%	3.1%	3.1%	2.7%	2.4%	2.3%
Market share % - by titles										
YiNianXiaoYao	一念逍遥-仙山联动		1.5%	1.6%	1.7%	1.7%	1.6%	1.6%	1.6%	1.1%
WenDao	问道		0.9%	0.6%	0.9%	1.3%	1.3%	0.9%	0.5%	0.5%
UndergroundCastle3:PoemofSoul	地下城堡3: 魂之诗		0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%
Mole's World	摩尔庄园		0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Devil's Deck	恶魔秘境		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: SensorTower, Data compiled by Goldman Sachs Global Investment Research

Timespent and Engagement of mainland China's top 50 mobile games dropped -10% in August 2022, the steepest yoy decline since February 2022

Exhibit 11: Games: timespent on games dropped 10% yoy in August, widening the -2% decline in July.

Game	Timespent % yoy	2021-10	2021-11	2021-12	2022-01	2022-02	2022-03	2022-04	2022-05	2022-06	2022-07	2022-08
Honour of Kings 王者荣耀		-9%	-17%	-22%	-18%	-28%	-2%	4%	-13%	-22%	-21%	-25%
Peacekeeper Elite 和平精英		-18%	-18%	-24%	-12%	-21%	4%	26%	13%	-5%	-10%	-26%
Anipop 开心消消乐		22%	17%	14%	21%	37%	32%	32%	22%	17%	24%	26%
Fight of The Golden Spatula 金铲铲之战		0%	0%	0%	0%	0%	0%	0%	N.M.	N.M.	N.M.	218%
Genshin Impact 原神		-19%	10%	12%	105%	68%	86%	135%	76%	91%	94%	87%
League of Legends: Wild Rift 英雄联盟手游		0%	0%	0%	0%	0%	0%	0%	0%	N.M.	N.M.	N.M.
Huanle Doudizhu (Tencent) 欢乐斗地主 (腾讯)		8%	-6%	-14%	-19%	-23%	-32%	-32%	-30%	-34%	-32%	-27%
Tencent Huanle Mahjong 腾讯欢乐麻将全集		3%	4%	2%	5%	20%	2%	2%	-6%	-15%	-12%	-2%
Tiantian Xiangqi 天天象棋		13%	8%	7%	11%	11%	19%	26%	19%	15%	23%	27%
CrossFire: Legends 穿越火线: 枪战王者		-47%	-50%	-55%	-37%	-30%	-4%	3%	-16%	-25%	0%	-7%
Total		13%	11%	-1%	-2%	-11%	12%	21%	7%	-1%	-2%	-10%

Game	Timespent % share	2021-10	2021-11	2021-12	2022-01	2022-02	2022-03	2022-04	2022-05	2022-06	2022-07	2022-08
Honour of Kings 王者荣耀		40%	37%	37%	40%	39%	39%	40%	39%	39%	39%	38%
Peacekeeper Elite 和平精英		11%	11%	12%	15%	17%	15%	16%	15%	13%	15%	14%
Anipop 开心消消乐		7%	7%	8%	7%	7%	8%	8%	8%	8%	8%	8%
Fight of The Golden Spatula 金铲铲之战		4%	5%	6%	4%	4%	5%	4%	5%	6%	5%	4%
Genshin Impact 原神		3%	3%	3%	4%	4%	4%	4%	4%	4%	5%	6%
League of Legends: Wild Rift 英雄联盟手游		12%	14%	9%	6%	4%	4%	4%	4%	4%	4%	4%
Huanle Doudizhu (Tencent) 欢乐斗地主 (腾讯)		3%	3%	3%	3%	3%	3%	3%	3%	3%	2%	2%
Tencent Huanle Mahjong 腾讯欢乐麻将全集		1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Tiantian Xiangqi 天天象棋		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
CrossFire: Legends 穿越火线: 枪战王者		2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%

Source: QuestMobile, data compiled by Goldman Sachs Global Investment Research

Imminent game pipeline update:

1) Tencent now possesses a confirmed pipeline of 50+ new games dedicated to global audiences, which will be published by Level Infinite and other subsidiaries in 2022E-2024E, including 20+ games for 2022 as of August.

- **Domestic: 1) Undawn** (黎明觉醒, with Banhao approval remaining effective), the immersive open-world survival game that we expect to have blockbuster potential will be released in September; **2)** On 13 August, Tencent released a concept trailer of the mobile version of **Assault Fire** (逆战), which is one of mainland China's most famous MMO shooting games.
- **International - investee studios & partnership: 1)** Tencent is working with Ubisoft on multiple mobile adaption projects, similar to its relationship with Nexon and Krafton; **2)** Tencent noted Miniclip has a strong track record in acquiring studios in Europe (e.g. SYBO). Riot has also acquired game developer teams without game assets per Tencent; **3)** In August, Tencent released *Tower of Fantasy* through Level Infinite and *Turbo Golf* through Sumo Group, Tencent will also release *Metal: Hellsinger* through Funcom in September and *Warhammer Darktide* in 4Q22.

2) NetEase has 6 games (with Banhao) pending launches domestically. Longer term, we expect:

- **Harry Potter: Magic Awakened:** Confirmed **2022 global release**, with its overseas closed beta testing (incl. Japan, where NetEase will be the main publisher) concluded on **30 July**. We estimate the Japan version to be launched in **4Q22E**, and reach a similar level of grossing as *Knives Out* (2-3% of Japanese mobile game

market share).

- **Naraka: BladePoint Mobile:** We estimate the game could reach a potential **Rmb6.1bn** revenue (equivalent to 10% of our 2023E mobile game revenue assumption). We expect potential Banhao approval for the game as early as March 2023.
- **Justice Mobile:** NetEase officially announced closed beta testing of *Justice Mobile* on 30 September and we expect Banhao approval as early as end-2022 or 1H23 using average lead-time of NetEase domestic games, or historical martial-arts MMORPG games' lead-time as proxy.
- **Vive Le Football:** The most imminent game in NetEase's pipeline, which is scheduled to launch on 21 September.
- On the 2022 Gamescom held in Cologne, NetEase released the trailer of its new open-world action RPG game **Where Wind Meet** (燕云十六声), which is set in the Northern Song Dynasty and featuring Chinese swordsmanship and martial arts.
- **Accelerated in globalization:** Netease has announced onboarding of 3 game industry veterans from XBOX, Ubisoft and CAPCOM with track records of producing Triple-A titles with expertise in shooting/action/open-world genre.

3) Bilibili: Bilibili has a total of 7 games in the pipeline slated for 2H22-1H23 release, after obtaining 3 approvals of its domestic games: **1) Non-anonymous instruction** (非匿名指令), a mobile based CCG game with 219k pre-registration users on Bilibili, and has kicked-off the beta test on 4-Aug-2022; **2) ChangAn Bai Wan Guan** (长安百万贯), a mobile based business simulation game with 80k pre-registration users on Bilibili app store. Bilibili also received 1 amended Banhao on 13 September. *Warm Snow* (暖雪), the PC-based rougelike action game that was published by Bilibili in Jan-2022, and was granted PC banhao in **July-2021**, has now received mobile Banhao.

Exhibit 12: Tencent: domestic game pipeline

English Name	Chinese Name	Banhao Status	CP	Genre	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Rest 2022
Game launched					1Q22			2Q22			3Q22			
Stairway to Stardom	璀璨星途	Approved	Tencent	Simulation	Public testing on 13 Jan	Public testing on 15 Feb Public testing on 18 Feb Public testing on 22 Feb								
The Story of Yanxi Palace	延禧攻略之凤凰于飞	Approved	Tencent	Casual										
Xuan Zhong Ji	玄中记	Approved	Seasun	SLG										
Wo Long Yin 2	卧龙吟 2	Approved	Seasun	SLG										
Joy of Life	庆余年	Approved	Tencent	MMORPG	Beta testing on 20 Jan			Public testing on 25 Mar						
Return to Empire	重返帝国	Approved	Tencent	SLG			Public testing on 29 Mar							
Noah's Heart	诺亚之心	Approved	Archosaur Games	RPG	Beta testing on 13 January			Public testing on 13 April						
Black Desert	黑色沙漠	Approved	Tencent	RPG										
Code: Three Kingdom	乱世逐鹿：风起三国	Approved	Tencent	SLG			Final testing on 21 Mar		Public testing on 26 May					
3 on 3 Freestyle	全民大灌篮	Approved	Tencent	Sports						Public testing on 10 June				
Zhi Jian Ling Zhu	指尖领主	Approved	Tencent	Casual				Beta testing on 30 May			Public testing on 5 July			
Arena Breakout	暗区突围	Approved	Tencent	FPS	Beta testing on 14 Jan	Beta testing on 23 Feb	Beta testing on 31 Mar		Beta testing on 17 May		Public testing on 13 July			
League of Legends: e-sport manager	英雄联盟：电竞经理	Approved	Tencent	SLG			Alpha testing on 18 Mar				Public testing on 20 July			
Game pipeline														
Azuresky Fantasy	蓝空幻想	Approved	Tencent	MMORPG							Public testing on 25 August			
Eggshell Commando	弹壳特攻队	Approved	Tencent	Roguelike							Beta testing on 17 August	Public testing 6 September		
Undawn	黎明觉醒	Approved	Tencent	Survival								Public testing in September		
One-Punch Man Justice is Served	一拳超人正义执行	Approved	Tencent	Action								Public testing in September		
Health Defense	健康保卫战	Approved	Tencent	Casual								Banhao Approved		
Iris Fall	彩虹坠入	Approved	Tencent	Puzzle								Mobile Banhao Approved (previous only console)		
Kitten Match	小猫爱消除	Approved	Tencent	Casual										Public testing on 1 November
Mobile DnF	地下城与勇士	Approved	Nexon	MMOACT			Intl. launch in Mar 2022							
Wu Xu Ci Yuan	无序次元	N	Tencent	Action							Beta testing on 14 July			
Apex Legends Mobile	Apex英雄手游	NA	Tencent	Shooting					International soft launch in May 2022					

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 13: NetEase: domestic game pipeline

English Name	Chinese Name	Genre	Platform	Banhuo Approve	Approval Date	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Rest 2022
Game launched						3Q21			4Q21			1Q22			2Q22			3Q22			
Marvel Super War	漫威超级战争	MOBA	Mobile	Y	12/2/2020	Public testing on July 15															
Racing Master	王牌竞速	Racing	Mobile	Y	12/31/2020	Public testing on July 23															
Code: Moon	月神的迷宫	Card	Mobile	Y	7/1/2020	Public testing on July 27															
Shaoji 2	有杀气童话2	MMO	Mobile	Y	12/9/2019	Public testing on July 29															
EVE: Echoes	星战前夜：无烬星河	Sandbox	Mobile	Y	2/9/2021		Public testing on Aug 5														
NARAKA: BLADEPOINT	永劫无间	Action	PC	Y	9/21/2020	Final testing on July 8	Public testing on Aug 12														
Primitive Civilization	洪荒文明	SLG	Mobile	Y	5/24/2021	Final testing on July 10	Public testing on Aug 12														
Infinite Lagrange	无尽的拉格朗日	Battle	Mobile	Y	10/23/2019		Public testing on Aug 18														Received IPC Banhuo
Harry Potter: Magic Awakened	哈利波特：魔法觉醒	CardRPG	Mobile	Y	8/6/2020			Public testing on Sept 9													
Marvel Duel	漫威对决	CCG	Mobile	Y	8/28/2021	Alpha testing on July 2	Beta testing on Aug 20	Public testing on Sept 29													
Dream Chaser: the Showbiz	绝对演绎	Simulation	Mobile	Y	3/19/2021						Public testing on Dec 24										
Stick Fight: The Game	逗斗火柴人	Action	Mobile	Y	8/28/2021						Public testing on Dec 30										
Roar of War	战争怒吼	RTS	Mobile	Y	9/29/2020						Alpha testing on Dec 29										
Eggy Go	蛋仔派对	Casual	Mobile	Y	7/22/2021	Banhuo Approved		Beta testing on Sept 28			Beta testing on Dec 24					Final testing on 14 April	Public testing on 21 May				
Diablo Immortal	暗黑破坏神：不朽	ARPG	Mobile	Y	2/9/2021	Alpha testing on 15 July				Beta testing on 29 Nov								Public testing on July 25			
Game pipeline																					
Vive Le Football	绿茵信仰	Sports	Mobile	Y	4/27/2021		Beta testing on Aug 21					Beta testing on Jan 14				Beta testing on May 20				Public testing on 21 September	Banhuo Approved
Streetball Allstar	全明星街球派对	Sports	Mobile	Y	9/13/2022																
Ghost World Chronicle	倩女幽魂：极品世界	CCG	Mobile	Y	8/8/2019							Development update on Jan									
Steam Fighter: Alliance	蒸汽战纪：联盟	SLG	Mobile	Y	8/28/2021																
Fishing Contest	钓鱼大对决	Casual	Mobile	Y	8/28/2021																
Candy Crush Friends Saga	糖果缤纷乐	Casual	Mobile	Y	12/2/2020																
Justice Mobile	逆水寒手游	MMORPG	Mobile	N	-															Closed beta testing on 30 September	
Mission Zero	零号任务	Action	Mobile	N	-		Alpha testing on Aug 19					Beta testing on Jan 10									
Code name: Candle	代号：烛	Action	Mobile	N	-							Alpha testing on Jan 14									
Onmyoji: Yokai Class	阴阳师：妖怪小班	CCG	Mobile	N	-		Alpha testing on July 9							Beta testing on Mar 16							
Firefly Assault	萤火突击	Shooting	Mobile	N	-				Alpha Testing on Sept 23												
NARAKA: BLADEPOINT - console	永劫无间主机版	Action	Console	N	-																Release 2022 worldwide
NARAKA: BLADEPOINT - mobile	永劫无间手机版	Action	Mobile	N	-																2m+ pre-reg on TapTap

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 14: Bilibili: domestic and international pipeline

English Name	Chinese Name	Genre	Platform	Banhuo Approved	License Approval Date	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22
Game launched						3Q21			4Q21			1Q22			2Q22			3Q22		
Zhan Yao Xing	斩妖行	Action	PC	Y	4/27/2020	Public testing on July 8														
Beatless	空想人型	Action/ACG	Mobile	Y	6/15/2020	Public testing on July 8														
Pride of Eden	伊甸园的骄傲	Card	Mobile	Y	2/7/2021	Public testing on July 15														
Gu Jian Qi Tan	古剑奇谭木语人	Card/RPG	Mobile	Y	4/8/2020	Public testing on July 27														
Warm Snow	暖雪	Rogue Lite/Action	PC	Y	7/22/2021	Banhuo Approved	Public testing on Aug 4												Received Mobile Banhuo	
Noland	诺澜兰物语	Simulation	Mobile	Y	8/21/2020		Public testing on Aug 26													
Burst Witch	爆烈魔女	Shooting	Mobile	Y	11/14/2019				Public testing on Oct 15											
Eternal Tree	悠久之树	RPG	Mobile	Y	7/22/2021	Banhuo Approved				Public testing on Nov 24										
Vows of Heroes	战魂契约	Card/ACG	Mobile	Y	9/29/2019			Beta testing commenced on Sep 9			Public testing on Dec 9									
Time Studio	时光梦行	Card/ACG	Mobile	Y	10/16/2020		Alpha testing commenced on 12 August			Beta testing commenced on Nov 16		Public testing on Jan 13							Server to close on 8 Aug	
Pretty Derby Ultramurume	赛马娘	Card/ACG	Mobile	Overseas release													Taiwan release on 27 June			
Space Hunter 3	时空猎人3	Anime/Action	Mobile	Y	11/30/2020										Closed beta testing on 25 May		Public testing on 29 June			
Game pipeline																				
Gem trader	宝石矿物语：伊甸之石	Card	Mobile	Y	3/19/2021						Beta testing on 31 Mar							Beta testing on 12 July		
Non-anonymous commands	非匿名指令	Card	Mobile	Y	7/12/2022									Closed beta testing on 7 April				Banhuo Approved	Beta testing on 4 Aug	
Hunting moment	狩猎时刻	Anime/action	Mobile	Y	7/29/2020						Beta testing on 20 Jan									
Chang An Bai Wai Guan	长安百外关	Simulation	Mobile	Y	8/1/2022					Alpha testing on Dec 15									Banhuo Approved	
Forge in shadow torch	暗影火炬城	Action	PC	Y	7/12/2022													Banhuo Approved		
THRUD	斯露德	Card/shooting	Mobile	Y	11/5/2020									Trailer released in March						
Shining Star Shopping Street	星耀购物街	Anime/simulation	Mobile	Y	9/1/2020															
Small flashlight party	小手电派对	Casual	Mobile	N											Beta testing on 8 April					
Nightingale: Reverse Command	夜莺：逆向指令	Anime/RTS	Mobile	N												Beta testing on 5 May				
Guang Xi Jie Yu	光隙解语	Anime/RPG	Mobile	N						Alpha testing on Dec 31						Beta testing on 18 May				
Code: Baija	代号：百家	Rouge/like/action	Mobile	N											Alpha testing on 11 April				Beta testing commenced on 9 Aug	
RE: AETATIS	重构 阿塔提斯	MOBA	Mobile	N				Alpha test on Sep 23				Beta test on Jan 13								

Source: Company data, Goldman Sachs Global Investment Research

Summary of Tencent and NetEase international pipelines

Exhibit 15: Tencent now possesses a confirmed pipeline of 50+ new games dedicated to global audiences, which will be published by Level Infinite and other subsidiaries in 2022-2024E, including 20+ games for 2022 as of August, which has expanded from 10 games as of Jan.

Entity	Title	Launch time	Platform(s)	Genre(s)	Developer(s)	Developer relation with Tencent	Publisher(s)
 Level Infinite	GTFO	10-Dec-21	Win	4-player co-op action horror FPS	10 Chambers	Subsidiary	10 Chambers
	Vampire: The Masquerade - Bloodhunt	7-Sep-21	Win, PS5	Battle royale	Sharkmob	Subsidiary	Sharkmob
	SYNCD: Off-Planet	17-Sep-21	PC	Shooter	NEXT Studios	In-house	Level Infinite
	Chimerland (异兽山海)	Jan-22	Win, Mobile	MMORPG	Pixel Soft	Subsidiary	Level Infinite
	Warhammer 40,000: Darktide	30-Nov-22	Win, XSX	Action	Fatshark	Subsidiary	Fatshark
	Metal: Hellsinger	15-Sep-22	Win, PS5, XSX	Shooter	The Outsiders	Subsidiary	Funcom
	Conan Chop Chop	1-Mar-22	Win, PS5, XSX	Action, adventure	Mighty Kingdom	Subsidiary	Funcom
	Avatar: Reckoning	2022	Mobile	MMO, shooting	Archosaur Games	Co-developed	Level Infinite
	The Cycle: Frontier	8-Jun-22	Win	shooting	YAGER	Subsidiary	Level Infinite
	Tower of Fantasy (幻塔)	10-Aug-22	Mobile	MMO, CCG	Perfect World	Partner	Level Infinite
	MIKKE: The goddess of victory	2022	Mobile	CCG, shooting	SHIFT UP	Partner	Level Infinite
	Little Orpheus	Mar-22	Win, PS5, XSX, NS	Action	Sumo Group	Subsidiary	Sumo Group
	Turbo Golf	4-Aug-22	Win, XSX	Racing	Sumo Group	Subsidiary	Sumo Group
	Nightingale	2022	Win, PS5, XSX	Action, adventure	Inflexion Games	Subsidiary	Level Infinite
	VED	2022	PC	RPG	Karacian	Subsidiary	1C Entertainment
	Men of War II	2022	PC	RTS	Best Way	Subsidiary	1C Entertainment
	Hyperviolent	2022	PC	Action	Terminist Arcade	Subsidiary	1C Entertainment
	Moon Light Blade Mobile (天涯明月刀)	24-Jun-22	Mobile	MMORPG	Tencent	In-house	Level Infinite, Garena
	Dune: Spice Wars	26-Apr-22	Win	4X, real-time strategy	Shiro Games	Subsidiary	Funcom
	Dont Starve: Neathome	TBA	Mobile	Survival, Sandbox, Adventure	Shenggu Games	Subsidiary	Level Infinite
 Riot Games	Soul Frame	TBA	Win, PS5, XSX	MMORPG	Digital Extreme	Subsidiary	Digital Extreme
	Vanguard	TBA	Win, PS5, XSX	Battle royale	Remedy Entertainment	Co-developed	Level Infinite
	Dune: Awakening	TBA	PC, PS5, Xbox, X/S	Open-world, Survival, MMO	Funcom	Subsidiary	Funcom
	Honor of Kings	TBA	Mobile	MOBA	Tencent	In-house	Level Infinite
	Ruined King	16-Nov-21	Nintendo Switch, PS4, XBO, Win	Role-playing	Airship Syndicate	Subsidiary	Riot Forge
	Hextech Mayhem	16-Nov-21	Nintendo Switch, Win	Rhythm	Choice Provisions	Subsidiary	Riot Forge
	Hytale	2023	TBA	Sandbox	Hypixel Studios	Subsidiary	Riot Games
	Convergence: A League of Legends Story	TBA	Win, NS, PS4, PS5, XBO, XSX	Action, platform	Double Stallion Games	Subsidiary	Riot Forge
	Song of Nunu: A League of Legends Story	TBA	Win, NS, PS4, PS5, XBO, XSX	Action-adventure	Tegula Works	Subsidiary	Riot Forge
	Project L	TBA	TBA	Fighting	Riot Games	Subsidiary	Riot Games
 Supercell	Project F	TBA	TBA	Action role-playing	Riot Games	Subsidiary	Riot Games
	World of Runeterra	TBA	TBA	MMORPG	Riot Games	Subsidiary	Riot Games
	League of Legends MMO	TBA	TBA	MMORPG	Riot Games	Subsidiary	Riot Games
	Everdale	23-Aug-21	Mobile	village-building	Supercell	Subsidiary	Supercell
	Clash Mini	8-Nov-21	Mobile	Strategy, board game	Supercell	Subsidiary	Supercell
	Clash Heroes	TBA	Mobile	Action	Supercell	Subsidiary	Supercell
 Epic Games	Alan Wake Remastered	5-Oct-21	Win, PS4, XBO, PS5, Xbox X/S	Horror	Remedy Entertainment	Associates	Epic Games Publishing
	Rocket League Sideswipe	2-Dec-21	iOS, Android	Racing	Psyonix	Associates	Epic Games
	Fortnite Chapter 3	7-Dec-21	PlayStation, Xbox, and PC	Battle Royale, shooting	Epic Games	Associates	Epic Games
	Rumbleverse	11-Aug-22	PlayStation, Xbox, and PC	Battle Royale	Iron Galaxy Studios	Co-operated	Epic Games
	Railgrade	30-Sep-22	Win, NS	Strategy, Simulation	Minakata Dynamics	Co-operated	Epic Games
	Alan Wake 2	2023	Win, PS4, XBO, PS5, Xbox X/S	Horror	Remedy Entertainment	Co-operated	Epic Games Publishing
	The Matrix Awakens	TBA	PS5 and Xbox Series X/S	Open-world, action	Epic Games	Co-operated	Epic Games
	PC Building Simulator 2	TBA	PC	Leisure, Simulation	Spiral House	Co-operated	Epic Games Publishing
Other PC & console	MEDIUM	28-Jan-21	Win, PS5, XBO	Horror	Bloober Team	Subsidiary	Bloober Team
	Hood: Outlaws & Legends	10-May-21	Win, Nintendo Switch, PS4, XBO	Action	Sumo Digital	Subsidiary	Focus Home Interactive
	Grifflands	1-Jun-21	Win, Nintendo Switch, PS4, XBO	Roguelike, RPG	Klei Entertainment	Subsidiary	Klei Entertainment
	CROWZ: Squad Operation	13-Nov-21	Win	Shooting	Royal Crow	Subsidiary	THUMBAGE
	V Rising	17-May-22	Win	Action, RPG	Stunlock Studios	Subsidiary	Stunlock Studios
	The Cycle: Frontier	8-Jun-22	PC	Shooting	YAGER	Subsidiary	YAGER
	All of us are dead related game	2022	PC	Survival	IKINA Games	Subsidiary	IKINA Games
	Wanted: Dead	2023	Win, PS5, XBO	Shooting	Wake Up Interactive	Subsidiary	110 Industries
	Vengeance is Mine	2023	Win, PS5, XBO	Action	Wake Up Interactive	Subsidiary	110 Industries
	Layers of Fears	2023	Win, PS5, XBO	Horror	Bloober Team	Subsidiary	Bloober Team
	Path Of Exile 2	2024	Win, PS5, XBO	MMORPG	Grinding Gear Games	Subsidiary	Grinding Gear Games
	Little Devil Inside	TBA	Win, NS, PS4, PS5, XBO	Action role-playing	Neostream Interactive	Subsidiary	Neostream Interactive
	Project N1	TBA	Win	MMORPG	Nyou	Subsidiary	Nyou
	Project EDO	TBA	Win, PS5, XBO	Battle Royale, ninja	Wake Up Interactive	Subsidiary	110 Industries
	Un-named new project	TBA	Win, PS5, XBO	Sci-fi, shooting	Splash Damage	Subsidiary	Leyou Technologies
Other mobile	Robwood	TBA	Win	Action, Adventure	Klei Entertainment	Subsidiary	Klei Entertainment
	Order Zero	Sep-21	Mobile	Shooting, ACG	IKINA Games	Subsidiary	IKINA Games
	Galaxy Tales: Story of Rapunzel	Jan-22	Mobile	Action	IKINA Games	Subsidiary	IKINA Games
	Story of Seasons	2022	Mobile	Simulation	NeXT Studio	In-house	Level Infinite
	Un-named new project	TBA	Mobile	Open-world, Shooting	YAGER	Subsidiary	YAGER
Developed by Tencent	Apex Legends Mobile	31-May-22	Mobile	Battle royale	Tencent	Co-developed	Electronics Arts

Source: Company data, data compiled by Goldman Sachs Global Investment Research

Exhibit 16: NetEase has a pipeline of over 7 international games in 2022, with the next meaningful contributor likely to be Harry Potter Japan, though the launch date has not been confirmed yet.

Game	Genre	Release date	Region
<i>Naraka: Bladepoint mobile</i>	Battle Royale	2023	Worldwide
<i>Naraka: Bladepoint console</i>	Battle Royale	2022	Worldwide
<i>Harry Potter: Magic Awakened</i>	MMORPG	4Q22	Japan, Korea, ASEAN
<i>Lost Light</i>	FPS	9/1/2022	Worldwide
<i>NeverAfter</i>	RPG	6/14/2022	ASEAN
<i>Dead by Daylight Mobile</i>	Horror	4/28/2022	Asia
<i>The Lord of the Rings: Rise to War</i>	SLG	4/15/2022	Japan, Korea, Macau, Hong Kong, Taiwan
<i>Vikingard</i>	MMORPG	3/21/2022	Canada, United States, France, Germany, United Kingdom, Australia
<i>Mission Zero</i>	Action	TBA	TBA
<i>Once Human</i>	Survival	TBA	TBA
<i>ZOZ: Final Hour</i>	Shooting	TBA	Brazil, Indonesia, Singapore
<i>Project 56</i>	RPG	TBA	TBA
<i>Revelation</i>	MMORPG	10/4/2021	Korea
<i>Harry Potter: Magic Awakened</i>	MMORPG	9/9/2021	Mainland China, Macau, Hong Kong, Taiwan
<i>The Lord of the Rings: Rise to War</i>	SLG	9/6/2021	Worldwide
<i>Genesis Masterwork Apocalypse</i>	CCG	7/28/2021	Japan, Taiwan
<i>MARVEL Duel</i>	CCG	7/22/2020	Hong Kong, Thailand, Malaysia
<i>X2: Eclipse</i>	CCG	7/1/2021	Korea
<i>Neko Crush</i>	Simulation	6/26/2021	United States, Thailand
<i>Onmyoji: Kindergarten</i>	CCG	5/21/2021	Japan
<i>Murderous Pursuits</i>	Action	4/30/2020	Thailand, Singapore, Canada, Taiwan
<i>Flower and Sword</i>	MMORPG	4/24/2020	Canada, Singapore, Malaysia, Australia, United Kingdom, Thailand, Korea, Germany, France, Vietnam, Hong Kong
<i>Infinite Lagrange</i>	SLG	4/21/2021	USA, Germany, Japan
<i>Onmyoji: The Card Game</i>	CCG	9/21/2020	Japan, Thailand, Hong Kong

Source: Company data, Goldman Sachs Global Investment Research

Target Price, TP Methodology and Risks

Tencent: Our 12-month SOTP-based target price is **HK\$502**, implying 71% upside. We are Buy-rated. Downside risks: More intense industry competition in performance-based advertising, unexpected delay in game launches/Banhao approvals, slower-than-expected growth in FinTech and Cloud businesses, reinvestment risk.

NetEase: Our 12-month SOTP-based target prices of **US\$121/HK\$189** for NTES/9999.HK, implying 46%/43% upside. We are Buy-rated on NTES/9999.HK. Downside risks: Weaker performance of legacy games, slower-than-expected monetization ramp-up of new games, more intensive competition in games, e-commerce, education and other business areas and rising content costs associated with music and advertising expenses related to the online education business.

Bilibili: Our 12-month DCF-based target prices of **US\$25.6/HK\$200** for BILI/9626.HK (WACC of 15% and terminal growth rate of 3%) imply 50%/44% upside. We are Neutral rated on BILI/9626.HK. Upside risks: 1) Further growth in time spent share; 2) Stronger online game revenue growth; 3) Progress on cost-cutting initiatives; 4)Banhao approval

earlier than expected. Downside risks: 1) Bigger gaming decline and negative margin mix, despite high R&D; 2) Advertising revenue decline due to macro economy slowdown; 3) Timespent slowdown due to competition with SFV players.

Japan: Mobile game market firm; no major change in top-ranking titles, but ONE PIECE IP titles stand out

Bandai Namco, Square Enix, Konami, CyberAgent and Nexon are covered by Minami Munakata.

According to SensorTower, Japan domestic mobile game sales grew +9% yoy in July and +3% yoy in August, marking relatively strong growth compared with other countries.

We do not expect to see a large earnings pull-back in demand post COVID normalization given the underlying population of gamers has grown due to stay-at-home demand, particularly in the console game market. We think Jul/Aug sales confirm no impact from COVID-19 normalization on the mobile game market. While there has been no major change in the top-ranking titles in terms of sales, we note the rise in the rankings of *ONE PIECE Treasure Cruise* and *ONE PIECE Bounty Rush-Action Game* (both Bandai Namco) on the strong popularity of *ONE PIECE* IP. On the other hand, trends appear to differ by title and company, highlighted by relatively weak sales for Konami's *Professional Baseball Spirits A*, likely due to seasonality. We think attention will focus on new mobile game titles set to launch going forward, including *Jujutsu Kaisen: Phantom Parade* (scheduled for 2022, by Sumzap, which is part of the CyberAgent group) and *FINAL FANTASY VII: EVER CRISIS* (which is being jointly developed by CyberAgent subsidiary Applibot and Square Enix).

For Bandai Namco, while we note that the company's past mobile game sales and SensorTower's sales data do not necessarily correlate, mobile game sales for Jul-Aug 2022 according to SensorTower were +28% yoy, which was higher than our mobile game sales growth forecast for Jul-Sep 2022 (+11% yoy).

- By game title, sales were strong for *ONE PIECE Treasure Cruise* and *ONE PIECE Bounty Rush-Action Game* against the backdrop of the rising popularity of *ONE PIECE* IP, underscored by the theatrical release of the anime *ONE PIECE FILM RED* (on August 6), which has proven to be a hit, with box office receipts exceeding ¥12 bn. Bandai Namco plans to launch a new RPG *ONE PIECE ODYSSEY* for the PS5, PS4, Xbox Series X|S, and Steam before the end of 2022. We think this title could also benefit from the popularity of *ONE PIECE* IP.

For Square Enix, we note that past mobile game sales and SensorTower's sales data do not necessarily correlate. However, its mobile game sales for Jul-Aug 2022 according to SensorTower were +18% yoy, which was higher than our mobile game sales growth forecast for Jul-Sep 2022 (+4%).

- We surmise that this partly reflected the contribution of *Fullmetal Alchemist Mobile*, which was launched on August 4. At the same time, we think it is necessary to continue monitoring trends from September onwards, because the position of this title in the domestic mobile games sales rankings is gradually declining and Square Enix will hold a third-year anniversary event in September for the core title *Dragon*

Quest Walk. Square Enix plans to launch a host of console titles from September, starting with *Dragon Quest X Rise of the Five Tribes Offline* (scheduled for September 15). We expect the company's console game business to continue posting profits from 2Q, though, as (1) we see no need to assume write-offs for large development expenses, since new pipeline titles center on mid-sized titles, and (2) we think they will already have a fan base, since most are based on existing IP. That said, we forecast a 4Q loss for this business due to the launch of major new title *FORSPOKEN* and the booking of valuation losses on content. Along with mobile game trends, we will also be focusing on sales trends for new console game titles.

For Konami, we note significant correlation between the company's historical mobile game sales trend and SensorTower sales data. However, according to SensorTower, its mobile game sales in Jul-Aug 2022 were down -18% yoy, which is a larger decline than our forecast for mobile game sales to fall -5% yoy in Jul-Sep 2022.

- While Jul-Sep sales of core title *Professional Baseball Spirits A* look to be tracking below our estimate, we expect sales of this title to pick up in Oct-Dec on seasonality, given the company typically schedules anniversary and other events during this quarter each year. Accordingly, we see no reason to reduce our full-year earnings estimates on the back of the recent sales trend for this title. That said, we see some downside risk to our mobile game sales estimate for Jul-Sep 2022 on the combination of (1) weak sales of *Professional Baseball Spirits A*, and (2) our assumption that the company's business strategy is to continue focusing on user engagement rather than monetization with the distribution of *eFootball 2023*, the latest *eFootball* series update launched on August 25. We remain wary of soft earnings momentum in the near-term, and we will continue to closely monitor sales trends for core titles moving forward.

For CyberAgent, we note significant correlation between the company's historical mobile game sales trend and SensorTower sales data. According to SensorTower, its mobile game sales in Jul-Aug 2022 were down -21% yoy, which is largely in line with our forecast for mobile game sales to fall -26% yoy in Jul-Sep 2022.

- Per SensorTower, sales of core title *Uma Musume: Pretty Derby* remained on a downward trend, although we note that the yoy decline is narrowing steadily, from -55% in April to -42% in May, -47% in June, -3% in July, and -9% in August, which will likely leave a positive impression. If this trend continues, we expect user activity for this title to bottom and enter a stable phase, which could see title sales in FY9/23 come in above our assumption (sales decline of -25% yoy). CyberAgent plans to launch two new titles in the near term—*Jujutsu Kaisen: Phantom Parade* (slated for 2022) and *Final Fantasy VII: Ever Crisis*, jointly developed with Square Enix (we assume distribution will begin in 2023). We believe sales of the two new titles are unlikely to offset the downward trend for *Uma Musume: Pretty Derby*. That said, we think sales in the game business could return to a growth trajectory if (1) sales of *Uma Musume: Pretty Derby* enter a stable phase, and (2) the two new titles become hits. For this reason, we think investors will be closely monitoring sales trends for each of these titles moving forward.

For Nexon, we note significant correlation between the company's historical mobile game sales trend and SensorTower sales data. However, according to SensorTower, its mobile game sales in Jul-Aug 2022 were up +43% yoy, which is a weaker increase than our forecast for mobile game sales to rise +79% yoy in Jul-Sep 2022.

- That said, we think it is premature to gauge Jul-Sep earnings based solely on Jul-Aug sales data given (1) we expect new title *HIT2*, which is positioned at the top of Korea's mobile game sales ranking since its Korea launch on August 25, to contribute to top-line growth yoy again in September, and (2) the anticipated boost to September sales from events launched to coincide with the Korean Thanksgiving Day (Chuseok) holiday period. Nexon plans to launch two new titles in 2022—*KartRider: Drift* (on mobile as well as PS4, Steam, and Xbox One platforms) and *Project Discovery* (developed by subsidiary Embark Studios). Given our assumption that China sales of *Dungeon & Fighter* are unlikely to recover in the near term, and the lack of a China distribution timeframe for *Dungeon & Fighter Mobile*, we expect investors' near-term focus will be on the launch timing for new titles as well as post-launch download volume and sales rankings.

Target Price, TP Methodology and Risks

Bandai Namco (Buy, on Conviction List): Our 12-month target price of ¥13,800 is based on FY2 EV/NOPAT of 17.7X, the median of our global entertainment coverage. Key risks include: (1) Growth in the Toys & Hobby business falling short of our estimates; (2) Sharp slowdown in momentum for core mobile titles *Dragon Ball Z: Dokkan Battle* and *Dragon Ball Legends*, and new title failures, (3) More challenging competitive landscape for Digital business.

Square Enix (Buy): Our 12-month target price of ¥8,400 is based on FY2 EV/NOPAT of 17.7X, the median of our global entertainment coverage. Key risks include (1) weaker-than-expected contributions from new titles, (2) sharp decline in fee-paying MMO game subscribers, (3) limited or delayed benefits from the sale of overseas studios and some IP.

Konami (Buy): Our 12-month target price of ¥10,000 is based on FY2 EV/NOPAT of 17.7X, the median of our global entertainment coverage. Key risks include: (1) rapid falloff in momentum for core mobile title *Professional Yakyuu Spirits A*, (2) greater-than-expected delays in adding functions to and monetizing the *eFootball* series, (3) it takes longer than we project for COVID-19 to subside and the pandemic has a large impact on the sports and gaming & systems businesses in FY3/23 and beyond.

CyberAgent (Neutral): Our FY2 SOTP based 12-month target price is ¥1,500. Key risks include: (1) recession impact on the Internet advertising business, (2) sales of *Uma Musume: Pretty Derby*, (3) increase in viewership at ABEMA with the streaming of the FIFA World Cup Qatar 2022 finals turns out to be temporary, with no lasting increase in the user base, or the number of viewers increases more than we expect.

Nexon (Sell): Our 12-month target price of ¥2,300 is based on FY2 EV/NOPAT of 17.7X, the median of our global entertainment coverage. Key risks include (1) *Dungeon &*

Fighter Mobile sales exceeding our forecast, (2) sales momentum in existing PC online games (especially the Chinese version of Dungeon Fighter Online) recovering / increasing faster than we forecast, (3) greater-than-expected earnings contributions from new titles from Embark Studios.

Exhibit 17: Japanese mobile game publishers: worldwide grossing by player snapshot

Japan		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
BANDAI NAMCO Entertainment 7892.T									
YoY% - constant currency		-46%	-36%	-45%	-37%	-26%	104%	23%	84%
2-Yr CAGR% - constant currency		-17%	-23%	-27%	-23%	-3%	-5%	-1%	3%
Grossing % yoy - by titles									
Dragon Ball Z Dokkan Battle	ドラゴンボールZ ドッカンバトル	2%	4%	8%	6%	8%	-10%	19%	
ONE PIECE Treasure Cruise	ONE PIECE トレジャークルーズ	5%	10%	5%	0%	6%	16%	13%	245%
DRAGON BALL LEGENDS	DRAGON BALL LEGENDS	2%	4%	3%	3%	10%	-1%	6%	4%
ONE PIECE Bounty Rush-Action Game	ONE PIECE バウンティラッシュ - アクション	19%	4%	11%	16%	21%	22%	98%	210%
The Idolmaster: Cinderella Girls Starlight	アイドルマスター シンデレラガールズ	6%	2%	1%	1%	10%	4%	12%	1%
Global Market share %		1.3%	1.4%	0.9%	0.9%	1.7%	1.7%	2.5%	2.0%
Market share % - by titles									
Dragon Ball Z Dokkan Battle	ドラゴンボールZ ドッカンバトル	0.6%	1.1%	0.5%	0.4%	0.4%	0.3%	1.1%	0.5%
ONE PIECE Treasure Cruise	ONE PIECE トレジャークルーズ	0.2%	0.1%	0.1%	0.1%	0.4%	0.1%	0.1%	0.3%
DRAGON BALL LEGENDS	DRAGON BALL LEGENDS	0.3%	0.2%	0.3%	0.2%	0.2%	0.6%	0.5%	0.2%
ONE PIECE Bounty Rush-Action Game	ONE PIECE バウンティラッシュ - アクション	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%	0.4%
The Idolmaster: Cinderella Girls Starlight	アイドルマスター シンデレラガールズ	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
NEKON Company 3659.T									
YoY% - constant currency		-20%	-17%	32%	87%	56%	36%	46%	39%
2-Yr CAGR% - constant currency		9%	5%	32%	41%	20%	-4%	-11%	-15%
Grossing % yoy - by titles									
DnF Mobile	던전앤파이터 모바일	0%	0%	0%	0%	0%	0%	0%	0%
MapleStory M	메이플스토리M	-1%	-4%	8%	23%	18%	-1%	-2%	-4%
FIFA ONLINE 4 M by EA SPORTS™	FIFA ONLINE 4 M by EA SPORTS™	18%	23%	156%	148%	51%	62%	79%	30%
KartRider Mobile	카트라이더 러쉬플러스	-17%	5%	-1%	-1%	-3%	-3%	-3%	-8%
FIFA Mobile	피파모바일	9%	39%	57%	5%	2%	9%	38%	22%
Global Market share %		0.8%	0.7%	0.9%	1.1%	1.0%	0.8%	0.8%	0.9%
Market share % - by titles									
DnF Mobile	던전앤파이터 모바일	0.0%	0.0%	0.2%	0.4%	0.3%	0.2%	0.3%	0.2%
MapleStory M	메이플스토리M	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
FIFA ONLINE 4 M by EA SPORTS™	FIFA ONLINE 4 M by EA SPORTS™	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
KartRider Mobile	카트라이더 러쉬플러스	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%	0.0%
FIFA Mobile	피파모바일	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%
CyberAgent 4751.T									
YoY% - constant currency		60%	51%	-29%	-44%	-26%	-32%	-21%	-20%
2-Yr CAGR% - constant currency		27%	35%	24%	15%	32%	6%	13%	31%
Grossing % yoy - by titles									
Uma Musume Pretty Derby	ウマ娘 プリティーダービー	0%	185%	83%	58%	2%	47%	-3%	-9%
Princess Connect! Re: Dive	プリンセスコネクト! Re:Dive	2%	8%	63%	84%	23%	20%	32%	85%
BanG Dream! Girls band party!	バンドリ! ガールズバンドパーティ!	14%	6%	5%	53%	23%	59%	85%	32%
Shadowverse	シャドウバース (Shadowverse)	34%	63%	137%	80%	38%	23%	2%	31%
A blessing to this wonderful world!	この素晴らしい世界に祝福を! ファン	3%	3%	4%	5%	3%	47%	37%	51%
Global Market share %		1.5%	1.5%	1.8%	1.1%	1.2%	1.1%	1.3%	1.2%
Market share % - by titles									
Uma Musume Pretty Derby	ウマ娘 プリティーダービー	1.1%	1.0%	1.3%	0.8%	0.9%	0.8%	1.3%	1.3%
Princess Connect! Re: Dive	プリンセスコネクト! Re:Dive	0.2%	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
BanG Dream! Girls band party!	バンドリ! ガールズバンドパーティ!	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%
Shadowverse	シャドウバース (Shadowverse)	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%
A blessing to this wonderful world!	この素晴らしい世界に祝福を! ファン	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SQUARE ENIX 9684.T									
YoY% - constant currency		-25%	-26%	-32%	-30%	-18%	5%	22%	14%
2-Yr CAGR% - constant currency		4%	-1%	11%	-13%	-10%	0%	-4%	-7%
Grossing % yoy - by titles									
Dragon Quest Walk	ドラゴンクエストウォーク	-33%	-29%	-29%	-37%	-33%	-23%	15%	-13%
Dragon Quest Tact	ドラゴンクエストタクト	-7%	-26%	-33%	26%	25%	-14%	1%	-2%
FFBE Phantom War WAR OF THE VISIONS	FFBE幻影戦争 WAR OF THE VISIONS	68%	65%	48%	79%	59%	45%	68%	47%
Romancing SaGa Re: Universe	ロマンシング サガ リ・ユニバース	6%	-3%	-44%	-33%	-62%	-10%	-6%	73%
Holy Sword Legend ECHOES of MANA	聖剣伝説 ECHOES of MANA	0%	0%	0%	0%	0%	0%	0%	0%
Global Market share %		1.7%	1.4%	1.2%	1.2%	1.3%	1.4%	1.6%	1.5%
Market share % - by titles									
Dragon Quest Walk	ドラゴンクエストウォーク	0.5%	0.3%	0.5%	0.4%	0.4%	0.4%	0.5%	0.4%
Dragon Quest Tact	ドラゴンクエストタクト	0.4%	0.2%	0.2%	0.2%	0.2%	0.1%	0.3%	0.2%
FFBE Phantom War WAR OF THE VISIONS	FFBE幻影戦争 WAR OF THE VISIONS	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%
Romancing SaGa Re: Universe	ロマンシング サガ リ・ユニバース	0.3%	0.2%	0.1%	0.1%	0.1%	0.3%	0.2%	0.1%
Holy Sword Legend ECHOES of MANA	聖剣伝説 ECHOES of MANA	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Konami 9766.T									
YoY% - constant currency		-23%	16%	-6%	10%	-17%	-14%	-10%	-27%
2-Yr CAGR% - constant currency		14%	29%	5%	13%	-11%	-12%	-4%	-10%
Grossing % yoy - by titles									
Professional Baseball Spirits A	プロ野球スピリッツ A	-40%	-31%	-44%	12%	-22%	-30%	-5%	-40%
Yugioh Master Duel	遊戯王 マスターデュエル	0%	0%	0%	0%	0%	0%	0%	0%
eBaseball Powerful Pro Baseball	実況パワフルプロ野球	-23%	-34%	-15%	-39%	-25%	31%	-29%	-43%
Yu-Gi-Oh! Duel Links	Yu-Gi-Oh! Duel Links	-27%	-62%	-56%	-60%	-65%	-67%	-58%	-62%
eFootball 2022	eFootball 2022	-40%	-10%	2%	-52%	-97%	-67%	-86%	-76%
Global Market share %		1.5%	1.8%	1.4%	1.4%	1.0%	1.1%	1.2%	0.9%
Market share % - by titles									
Professional Baseball Spirits A	プロ野球スピリッツ A	0.7%	0.6%	0.5%	0.8%	0.4%	0.5%	0.7%	0.5%
Yugioh Master Duel	遊戯王 マスターデュエル	0.1%	0.6%	0.3%	0.2%	0.2%	0.1%	0.1%	0.1%
eBaseball Powerful Pro Baseball	実況パワフルプロ野球	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Yu-Gi-Oh! Duel Links	Yu-Gi-Oh! Duel Links	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
eFootball 2022	eFootball 2022	0.2%	0.3%	0.3%	0.2%	0.0%	0.1%	0.1%	0.0%

Source: SensorTower, data compiled by Goldman Sachs Global Investment Research

South Korea: Focus on existing games' PLC and incremental news on pipeline

NCSOFT (036570.KS), Krafton (259960.KS) and Pearl Abyss (263750.KQ) are covered by Eric Cha.

Korea: With key game launches delayed or slated toward the latter part of the year, we believe the main debates around the companies will be **product life cycle management** for existing games before new games kick in and incremental data (i.e. exact launch date, pre-launch marketing activities, details on business model) on the upcoming blockbuster games before their launch.

- **For NCSOFT** specifically, we believe the revenue trajectory of existing major mobile games (*LM*, *L2M*, *LW*) will be key drivers of earnings as delays in new pipeline materialized. Based on the commentary from management during the 2Q earnings call, we pushed back our launch assumptions for *TL* (*Throne and Liberty*) to 2Q23E (previously 4Q22E) and the following game pipeline accordingly in our 2Q results report; removing *LW* (region 2) launch given limited visibility.
- **For Krafton**, we expect *PUBG* franchise mobile revenue to drive near-term earnings but the main event for the year will likely be the launch of *The Callisto Protocol* (TCP, scheduled for Dec 2, 2022). During the 2Q earnings call, management highlighted positive seasonality into 3Q for *PUBG* franchise mobile game and multiple games in the pipeline, while also mentioning that the company is actively seeking to resolve the BGMI (*Battlegrounds Mobile India*) ban situation in India. We remain relatively conservative on the revenue size of the imminent blockbuster game, TCP, given the niche nature of the genre.
- **For Pearl Abyss**, we believe investor expectations are likely low on *BDM China* being a turnaround title given the weak debut and fast revenue deterioration trend. In addition, the company mentioned 'delay in progress' of *Crimson Desert* with no specific release date during the 2Q earnings call. With lack of visibility on the overall pipeline schedule, we also pushed back our *DokeV* launch assumption from 2Q24E to 4Q24E. The delay results in substantial volatility in earnings projections given the front-loaded nature of console games (both *Crimson Desert* and *DokeV* will be on PC and console platforms).

Target Price, TP Methodology and Risks

NCSOFT: We maintain our Neutral rating on NCSOFT but with a 12m TP of W380,000, based on 20x target P/E applied to NTM+1Y EPS of W19,364. For the short-term, Product life cycle management of existing major mobile games (i.e. *LM*, *L2M*, *LW*) poses as both upside and downside risks to earnings, in our view. Additional downside risk may come from further delay for *TL*, while better-than-expected performance from *TL* could result in earnings upside as well as a re-rating for the stock with other games in the pipeline could be perceived as having higher hit ratio in the overseas market.

Krafton: We maintain our Sell rating on Krafton with a 12m TP of W220,000, based on

18x target P/E applied to NTM+1Y EPS of W12,158. Key upside risks include better-than-expected product life cycle management for *PUBG* and better-than-expected performance from *The Callisto Protocol*, which could subsequently lead to a re-rating of the stock, on top of earnings upside.

Pearl Abyss: We maintain our Neutral rating on Pearl Abyss with a 12m P/E-based TP of W58,000. We apply a 16x NTM+1Y P/E to the average of our 2023E/24E EPS. The target multiple of 16x reflects where Pearl Abyss had been trading during 2019-2020, when the company's visibility on the next pipeline had been low (before the showcasing of *Crimson Desert* in Dec 2020). We think the valuation is neither cheap nor stretched, while higher visibility of upcoming game pipelines could act as a positive catalyst. Key risks to our TP include the timing uncertainty of the actual launch of the games in the pipeline (provides both up/downside risks) as well as the perceived quality of the games, when the games are showcased in major game shows or other events that have global audience (also provides both upside and downside risks).

Exhibit 18: South Korean mobile game publishers: worldwide grossing by player snapshot

Korea		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Netmarble Games Corp. 251270.KS									
YoY% - constant currency		-19%	-21%	-34%	20%	42%	-14%	1%	2%
2-Yr CAGR% - constant currency		12%	2%	-20%	2%	4%	1%	5%	17%
Grossing % yoy - by titles									
The Seven Deadly Sins: Grand Cross	七つの大罪 光と闇の交戦: グラクロ	-38%	-73%	-78%	-72%	-40%	-55%	-44%	-37%
Cash Frenzy™ - Casino Slots	Cash Frenzy™ - Casino Slots	-18%	-20%	-26%	-26%	-26%	-21%	-21%	-21%
Jackpot World™ - Slots Casino	Jackpot World™ - Slots Casino	56%	49%	53%	50%	38%	24%	4%	5%
Marvel Contest of Champions	Marvel Contest of Champions	-45%	-21%	-51%	-41%	-38%	-41%	-31%	-20%
Lotsa Slots - Casino Games	Lotsa Slots - Casino Games	-2%	0%	-1%	-4%	-2%	0%	4%	8%
Global Market share %		1.5%	1.3%	1.1%	1.9%	2.0%	2.0%	2.1%	2.1%
Market share % - by titles									
The Seven Deadly Sins: Grand Cross	七つの大罪 光と闇の交戦: グラクロ	0.3%	0.1%	0.1%	0.1%	0.3%	0.2%	0.2%	0.2%
Cash Frenzy™ - Casino Slots	Cash Frenzy™ - Casino Slots	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Jackpot World™ - Slots Casino	Jackpot World™ - Slots Casino	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Marvel Contest of Champions	Marvel Contest of Champions	0.2%	0.2%	0.2%	0.3%	0.2%	0.2%	0.4%	0.3%
Lotsa Slots - Casino Games	Lotsa Slots - Casino Games	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
NCSOFT 036570.KS									
YoY% - constant currency		61%	82%	108%	25%	26%	13%	23%	49%
2-Yr CAGR% - constant currency		5%	5%	10%	23%	19%	14%	8%	32%
Grossing % yoy - by titles									
Lineage W	리니지W	0%	0%	0%	0%	0%	0%	0%	0%
Lineage M	리니지M	-56%	-50%	-29%	2%	-22%	7%	0%	20%
Lineage 2M	리니지2M	-55%	-48%	-41%	-77%	-73%	-72%	-69%	-65%
Lineage 2M - Japan	リネージュ2M (Lineage2M)	0%	0%	24%	-57%	-55%	-46%	-46%	-65%
Blade & Soul	블레이드&소울2	0%	0%	0%	0%	0%	0%	0%	-33%
Global Market share %		2.2%	2.3%	2.3%	2.0%	1.8%	1.8%	1.7%	2.2%
Market share % - by titles									
Lineage W	리니지W	1.2%	1.3%	1.3%	1.0%	1.0%	0.6%	0.6%	0.9%
Lineage M	리니지M	0.4%	0.5%	0.5%	0.6%	0.5%	0.8%	0.8%	1.0%
Lineage 2M	리니지2M	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.3%
Lineage 2M - Japan	リネージュ2M (Lineage2M)	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Blade & Soul	블레이드&소울2	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
Krafton 259960.KS									
YoY% - constant currency - (Krafton publishing)		-7%	13%	28%	49%	-4%	-15%	-21%	-33%
YoY% - constant currency - PUBGm (ROW)		-13%	-8%	-9%	-12%	-38%	-40%	-40%	-32%
YoY% - constant currency - PKE (China)		13%	-15%	-15%	5%	7%	-7%	-37%	-34%
YoY% - constant currency - total		-3%	-6%	-2%	6%	-16%	-23%	-34%	-33%
Pearl Abyss Corp. 263750.KQ									
YoY% - constant currency		-45%	-45%	-80%	-16%	-34%	-41%	-49%	-48%
2-Yr CAGR% - constant currency		-45%	-45%	-46%	-47%	-49%	-48%	-49%	-45%
Grossing % yoy - by titles									
Black Desert Mobile	검은사막 모바일	-49%	-49%	-36%	-10%	-32%	-45%	-52%	-52%
Global Market share %		0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%
Market share % - by titles									
Black Desert Mobile	검은사막 모바일	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Source: SensorTower, data compiled by Goldman Sachs Global Investment Research

ASEAN: *Free Fire* remains the largest battle royale title, encouraged to see MoM gross revenue growth momentum

Sea Limited (SE) is covered by Pang Vittayaamnuyakoon

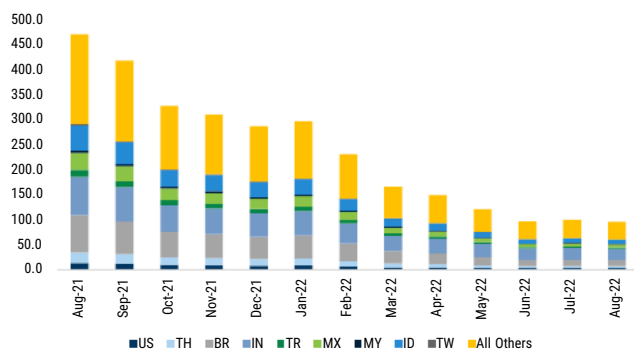
SEA: In 2Q22, qoq growth of Garena's QAU returned to positive territory, while grossing continued to decline by 13%. We believe the key focus around the company to remain as **1) stabilization of *Free Fire*'s grossing** proves Garena's capability to bring back monetization in tandem with engaging the users in a post-Covid world; and **2) game pipeline** that could potentially diversify revenue streams in the foreseeable future. Both user engagement and grossing were encouraging in August. ***Free Fire*+*Free Fire Max* MAU** was largely flat on MoM basis in August, suggesting further stabilized user base, thanks to Garena's effort in refreshing game content and the deliberate slow-down of monetization to engage gamers. Also, ***Free Fire*+*Free Fire Max* grossing** improved sequentially in the month vs. July, signaling the possibility for the game to bottom out in 2H22E. We expect Garena's grossing to bottom in **4Q22** with the qoq decrease moderating to -4%/-1% in 3Q22E/4Q22E. In the outer years, we believe it will follow the trajectory of mature MOBA titles and estimate a 6% growth in 2023E/24E. In terms of profitability, we expect **EBITDA margin downward trend to persist** in the following quarters, as Garena continues to spend on operating *Free Fire* franchise and investing into new games. In the longer term, we estimate a 47% steady-state EBITDA margin, reflecting the operational spending to build the longevity of the game against a soft macro outlook. We note Sea has rolled out cost saving initiatives to Garena and closed the game livestreaming and community platform ***Booyah!***. Alongside the shutdown of projects at Sea Lab and Shopee's exit from LATAM ex-Brazil, we believe Sea is focused on capital preservation and refocusing effort on sustainable development of its core businesses.

Free Fire

- According to SensorTower, ***Free Fire* revenue yoy decline stabilized at c.-45-50%** in the last a few months, with weakness across countries including the US, India, Brazil, Indonesia and Thailand. On MoM basis, ***Free Fire* revenue** was up by 9% in August, representing the most visible recovery since the beginning of this year. That said, we believe management will remain cautious in bringing back monetization after the deliberate slow-down in the past a few months. We expect paced movements to enhance paying ratio in the following quarters on the premise that QAU is healthy. **Downloads** declined on MoM basis, and was down by -2% YoY in August, partially due to weakness in India and Indonesia. That said, *Free Fire* remains the top title in the battle royale / FPS genre. In Brazil, Mexico, Thailand and Indonesia, ***Free Fire* is still the largest battle royale / FPS game ranking above both *Call of Duty* mobile and *PUBG*.**
- ***Free Fire*'s fifth anniversary** began on August 5 and lasted till August 27, with a series of events and cooperative activities within the game. The updated 5-year anniversary updates introduced a new map and an in-game concert collaborated with a popular artist. Exclusive rewards and giveaways were also available during the

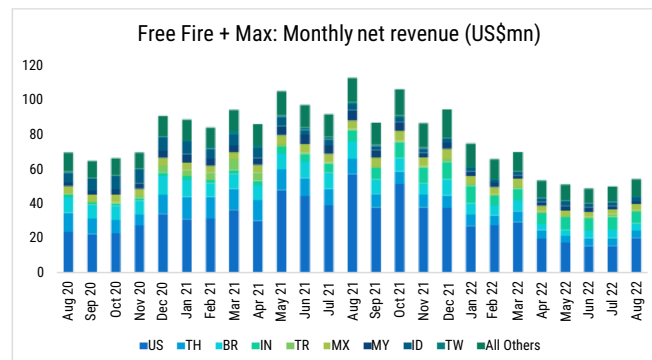
celebration event.

Exhibit 19: Free Fire + Free Fire Max MAU has stabilized into 3Q22



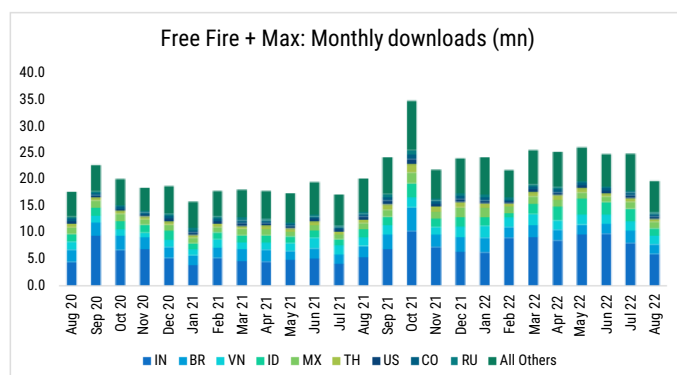
Source: SensorTower

Exhibit 20: Free Fire + Max grossing saw MoM improvement in August 2022



Source: SensorTower

Exhibit 21: ...while downloads declined sequentially in the month



Source: SensorTower

Arena of Valor

- **Net Revenue growth (yoy)** sustained the robust momentum and booked another MoM improvement in August. Downloads was largely stable heading into 3Q22. We note that Garena launched an update patch on August 31. By country, for downloads we see stronger yoy growth momentum in Vietnam, the Philippines, Malaysia and Singapore, while on revenue Malaysia, Hong Kong and the Philippines led the growth.

Moonlight Blade

- Launched in early August, **Moonlight Blade** has stayed on the top 15 grossing list in **Thailand**.

Alpha Ace/Primitive Era

- In July, Garena closed the 3rd round testing of **Alpha Ace**, a 5v5 first person tactical shooting mobile game, in both ASEAN and LATAM.
- **Primitive Era** is an **in-house developed** strategy mobile game with prehistory

game setup for players to explore the epoch-spanning journey. The game was launched for beta testing in **August**.

Target Price, TP Methodology and Risks

Maintain Buy on SE as we continue to view Sea as a winner in the fast-growing gaming, ecommerce and digital finance markets in Asia, and we expect further upside from its successful move into LATAM. Our 12-month SOTP-based TP remains unchanged at US\$159.

Key risks: 1) Competition from global peers; 2) macroeconomic and geopolitical risks and exchange rate volatility; 3) execution in new markets e.g. LATAM/Europe; 4) inability to derive synergies from all three businesses.

Exhibit 22: ASEAN mobile game publishers: worldwide grossing by player snapshot

ASEAN									
SEA/Garena Games Online		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Grossing (US\$ mn)		67	59	61	50	50	46	47	52
YoY% - global		-9%	-17%	-22%	-32%	-48%	-48%	-45%	-51%
2-Yr CAGR% - global		22%	23%	20%	5%	-4%	-8%	-10%	-7%
Grossing % yoy - by titles									
Garena Free Fire	Garena Free Fire	-13%	-19%	-23%	-37%	-54%	-53%	-47%	-56%
Garena Arena of Valor	Garena Arena of Valor	31%	13%	-1%	10%	9%	14%	17%	24%
Garena Moon Light Blade	天涯明月刀 M - Garena	0%	0%	0%	0%	0%	0%	-100%	-100%
Global Market share %		1.3%	1.3%	1.2%	1.0%	1.1%	1.0%	1.0%	1.1%
Market share % - by titles									
Garena Free Fire	Garena Free Fire	1.0%	1.0%	1.0%	0.8%	0.8%	0.8%	0.8%	0.8%
Garena Arena of Valor	Garena Arena of Valor	0.1%	0.2%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%
Garena Moon Light Blade	天涯明月刀 M - Garena	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: SensorTower, data compiled by Goldman Sachs Global Investment Research

Disclosure Appendix

Reg AC

We, Lincoln Kong, CFA, Minami Munakata, Eric Cha, Pang Vittayamnuaykoon, Ronald Keung, CFA, Steve Qiu, Shoto Sakuma, Diane Kang, Zoey Ha, Mika Fu and Kelsey Santoso, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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Growth is based on a stock's forward-looking sales growth, EBITDA growth and EPS growth (for financial stocks, only EPS and sales growth), with a higher percentile indicating a higher growth company. **Financial Returns** is based on a stock's forward-looking ROE, ROCE and CROCI (for financial stocks, only ROE), with a higher percentile indicating a company with higher financial returns. **Multiple** is based on a stock's forward-looking P/E, P/B, price/dividend (P/D), EV/EBITDA, EV/FCF and EV/Debt Adjusted Cash Flow (DACF) (for financial stocks, only P/E, P/B and P/D), with a higher percentile indicating a stock trading at a higher multiple. The **Integrated** percentile is calculated as the average of the Growth percentile, Financial Returns percentile and (100% - Multiple percentile).

Financial Returns and Multiple use the Goldman Sachs analyst forecasts at the fiscal year-end at least three quarters in the future. Growth uses inputs for the fiscal year at least seven quarters in the future compared with the year at least three quarters in the future (on a per-share basis for all metrics).

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Target price history table(s)

Pearl Abyss Corp. (263750.KQ)

Date of report	Target price (W)
16-Aug-22	58,000
12-May-22	65,000
17-Feb-22	113,000
25-Aug-21	104,000
31-Jul-21	110,000
28-Apr-21	97,000
16-Feb-21	490,000
21-Jan-21	350,000

NCSOFT Corp. (036570.KS)

Date of report	Target price (W)
14-Aug-22	380,000
31-Jul-22	430,000
15-May-22	480,000
21-Feb-22	460,000
25-Jan-22	880,000
11-Nov-21	1,010,000
04-Nov-21	970,000
02-Nov-21	920,000
30-Aug-21	960,000
11-Aug-21	1,260,000
15-Jul-21	1,220,000
10-May-21	1,200,000
29-Mar-21	1,190,000
03-Jan-21	1,260,000
16-Nov-20	1,060,000
21-Oct-20	1,040,000

Netmarble Corp. (251270.KS)

Date of report	Target price (W)
25-Apr-22	82,000
21-Feb-22	83,000
28-Apr-21	68,000
11-Nov-20	64,000

Krafton (259960.KS)

Date of report	Target price (W)
11-Aug-22	220,000
03-Aug-22	210,000
10-Feb-22	220,000
12-Jan-22	400,000
05-Dec-21	480,000

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